Pioneer

HDTV PROJECTION MONITOR

SD-643HD5
SD-533HD5

Operating Instructions

FEATURES

Dual System Component Input for NTSC/ Progressive

Connection to a DVD player with a component output terminal makes possible high picture-quality display, superior to that of S-VIDEO terminal connection. Also handles high resolution component input (1080i, 480p), which will function as an interface for high-quality images in future.

DUAL TUNER (SPLIT screen and SEARCH screen function)

Two TV tuners are provided, making it possible to split the screen vertically in two and display moving images simultaneously on them. In addition, the channel search function makes it possible to check, etc., on the program in the back. This adds remarkable convenience when you are concerned with two programs.

GLOW-IN-THE-DARK remote control

Makes it easier to operate the TV and other components in low-light environments.

Lens System for HDTV

Adoption of a lens system for high-resolution HDTV that faithfully reproduces HDTV 1080i signals allows highly color-saturated images to be displayed at high resolution.

Whole Screen IR Receiver

The remote control sensor is installed behind the screen, allowing you to operate this monitor with the remote control unit in those installations where only the screen is revealed.

3D Y/C Separation Circuit

This three-dimensional Y/C separation circuit reproduces clearer picture quality.

Multi-Point Convergence System

Thanks to new convergence system digital technology, not only can the center of the screen be adjusted, so can an amazing 72 other points (full mode) across the viewing area. This makes it possible to display clear images with no color distortion around the entire screen.
The adjustment is easily done using the remote control.

Read and understand these 'Operating Instructions' before operating your Monitor. Follow the 'IMPORTANT SAFETY INSTRUCTIONS AND WARNINGS' section and all the warnings on the product.

PIONEER'S PureCinema Format Converter

An advanced and exclusive I/P (Interlace/Progressive) format converter developed by Pioneer, called "PureCinema", delivers a high-resolution progressive picture. It reproduces film material in a very smooth and film-like image. This is perfect technology for movie lovers.

Reference Theater Mode

This mode reproduces film material just like a real film image. By cutting video enhancement circuits, the picture becomes more natural and looks filmlike.

Room Light Sensor (RLS)

When you select RLS on (LEVEL 1, LEVEL 2), in accordance with the ambient light of your room, TV automatically adjusts the picture brightness to reduce eye strain.

Program Block (V. CHIP)

You can block selected programs based on the established rating system for television and movies.

<U.S.A. RATING SYSTEM>

The TV Parental Guidelines are used to rate television programming: <TV-Y>, <TV-Y7>, <TV-G>, <TV-PG>, <TV-14> and <TV-MA>.
The Motion Picture Association of America (MPAA) guidelines are used to rate movies: <G>, <PG>, <PG-13>, <R>, <NC-17>, <X> and <NR>.

<CANADIAN RATING SYSTEM>

The Canadian English Language Rating system is used to rote television programming: <C>, <C8+>, <G>, <PG>, <14+> and <18+>.
The Canadian French Language Rating system is used to rate television programming: <G>, <8+>, <13+>, <16+> and <18+>.
In order to block programming you feel is inappropriate, rating limits can be set on both systems using the remote control and a password.

Thank you for purchasing this PIONEER HDTV Projection Monitor.
Please read the precautionary instructions enclosed with these operating instructions please do so before proceeding.
After learning how to operate the Projection Monitor, be sure to keep this manual handy for future reference.

[For U.S. model]

IMPORTANT NOTICE

H006AEn

The serial number for this equipment is located in the Rear panel. Please write this serial number on your enclosed warranty card and keep it in a secure area. This is for your security.

In this manual, we refer to the 'HDTV PROJECTION MONITOR', as the 'Projection Monitor' or the 'Monitor'.

Note on the SPLIT screen and SEARCH screen functions
The SPLIT screen and SEARCH screen functions provided in this monitor are intended for private viewing only.
Use of the above video processing functions for profitmaking purpose or for public viewing (clubs, hotels, etc.) without prior authorization from the transmitter and/or owner of the video program (s) may be an infringement of existing copyright laws.

[For U.S. model]

As an ENERGY STAR® Partner, Pioneer Corporation has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

K001 En

WARNING: THE APPARATUS IS NOT WATERPROOFS, TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE AND DO NOT PUT ANY WATER SOURCE NEAR THIS APPARATUS, SUCH AS VASE, FLOWER POT, COSMETICS CONTAINER AND MEDICINE BOTTLE ETC.

H001AEn

[For Canadian model]

CAUTION: TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

ATTENTION: POUR PREVENIR LES CHOCS ELECTRIQUES NE PAS UTILISER CETTE FICHE POLARISEE AVEC UN PROLONGATEUR UNE PRISE DE COURANT OU UNE AUTRE SORTIE DE COURANT, SAUF SI LES LAMES PEUVENT ETRE INSEREES A FOND SANS EN LAISSER AUCUNE PARTIE A DECOUVERT.

H007A2L

Note to CATV system installer
This reminder is provided to call the CATV system installer's attention to article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

H008 En

Information to User

H011 En

Alteration or modifications carried out without appropriate authorization may invalidate the user's right to operate the equipment.

IMPORTANT

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION:
TO PREVENT THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

H002 En

NOTICE ON ADVERSE EFFECTS ON THE TV TUBE

When playing TV games, operating computers or displaying still pictures with your Monitor, be sure to keep in mind the following points;

1. **Select the 'GAME' mode. (Refer to page 49 of the Operating Instructions)**
2. **Do not use your Monitor for more than two hours.**
3. **Watch normal TV broadcast's for three times longer than the time of playing TV games, operating computers or displaying still pictures.**

Still patterns can scar the Monitor causing performance damage to the CRT.

The following symbols are found in this manual and on the labels on the product. They alert the operators and service personnel of this equipment to potentially dangerous conditions.

⃠ This symbol indicates an action that is prohibited.

⚠ WARNING

This symbol refers to a hazard or unsafe practice which can result in severe personal injury or death.

⚠ CAUTION

This symbol refers to a hazard or unsafe practice which can result in personal injury or property damage.

⚠ WARNING

IMPORTANT SAFETY INSTRUCTIONS AND WARNINGS

- Read all of these instructions.
- Keep these instructions for later use.
- Follow all warnings and instructions marked on the Monitor.

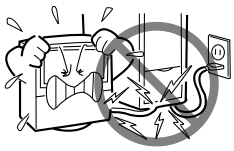
FOR YOUR PERSONAL SAFETY

1. This Monitor is equipped with a polarized alternating current line plug (a plug having one blade wider than the other).
   This plug will fit into the power outlet only one way. This is a safety feature.
   If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.

2. If the power cord or plug becomes damaged or frayed, unplug this Monitor from the wall outlet and refer to qualified service personnel for servicing.

3. Do not overload wall outlets and extension cords as this can result in fire or electrical shock.

4. Do not allow anything to rest on or roll over the power cord, and do not place the Monitor where the power cord maybe subject to traffic or abuse. This may result in electrical or fire hazard.



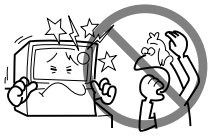
5. Do not attempt to service this Monitor yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified personnel.

6. Never push the objects of any kind into this Monitor through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the Monitor.

7. If the Monitor has been dropped or the cabinet has been damaged, unplug this Monitor from the wall outlet and refer to qualified service personnel for servicing.

8. If liquid has been spilled into the Monitor, unplug the Monitor from the wall outlet and refer servicing to qualified service personnel.

9. Do not subject your Monitor to impact of any kind. Be particularly careful not to damage the screen surface.



10. Unplug the Monitor from the wall outlet before cleaning. Do not use liquid cleaners or spray-type cleaners. Use a damp cloth for cleaning.

11-1. Do not place this Monitor on an unstable, uneven or an inclined location. The Monitor may overturn, causing serious injury (to a person), and serious damage to the appliance.

11-2. Be careful when placing the Monitor on a cart to move it. Quick stops, excessive force, and uneven surfaces may cause the Monitor and cart to overturn.

PROTECTION AND LOCATION OF YOUR HDTV PROJECTION MONITOR

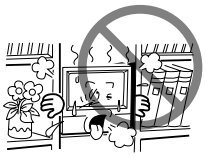
12. • Do not use the Monitor near water, for example, near a bathtub, wash basin, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, etc.

• Never expose the Monitor to rain water.
If the Monitor system has been exposed to rain or water, unplug the Monitor from the wall outlet and refer servicing to qualified service personnel.

13. Choose a place where light (artificial or sunlight) does not shine directly on the screen.

14. Avoid dusty places since the buildup of dust inside the Monitor's chassis may result in the malfunctioning, when high humidity persists.

15. • The Monitor has slots, or openings in the cabinet for ventilation purposes to ensure the reliable operation of the Monitor, and to protect it from overheating. These openings must not be blocked or covered.
• Never cover the slots or openings with cloth or other material.
• Never block the bottom ventilation slots of the Monitor by placing it on a bed, sofa, rug, etc.
• Never place the Monitor near or over a radiator or heat register.
• Never place the Monitor in a built-in enclosure such as a bookcase, unless proper ventilation is provided.



16. If an outside antenna is connected through other equipment, be sure the antenna system is grounded so as to provide protection against voltage surges and built-up static charges. In the U. S. A., section 810 of the National Electrical Code, ANSI/NFPA 70, provides information on proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna-discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrode, and requirements for the grounding electrode.

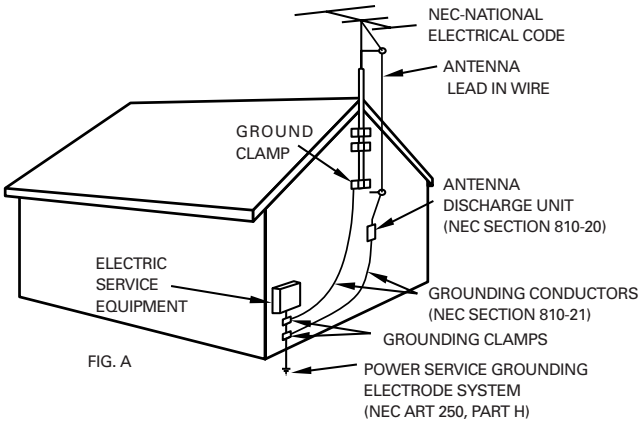
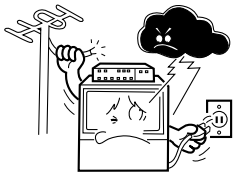


FIG. A

EXAMPLE OF ANTENNA GROUNDING IN NATIONAL ELECTRICAL CODE INSTRUCTIONS

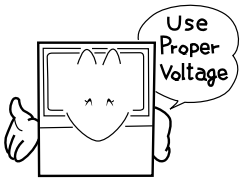
17. An outdoor antenna system should not be located in the vicinity of overhead power lines/ electric lights or power circuits, or where it can fall onto such power lines or circuits. When installing an outdoor antenna system, extreme care should be taken to keep it from touching such power lines or circuits as contact with them might be fatal.

18. For added protection during a lightning storm, or when it is left unattended and unused for long periods of time, unplug the Monitor from the wall outlet and disconnect the antenna. This will prevent damage due to lightning and power-line surges.

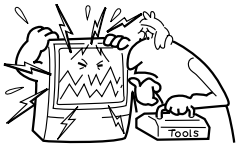


OPERATION OF YOUR HDTV PROJECTION MONITOR

19. The Monitor should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply at your home, consult your dealer or local power company.



20. If you are unable to restore normal operation by following the detailed procedure in your operating instructions, unplug it from the wall outlet and refer to qualified service personnel for servicing. Do not adjust other controls than those described in this manual. Improper adjustments may result in damage and will often require extensive work by a qualified technician to restore the Monitor to normal operation.

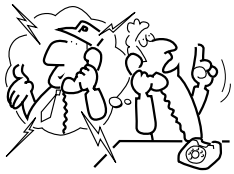


21. If your Monitor is to remain unused for a period of time, for instance, when you go on a holiday, turn the Monitor 'off' and unplug it from the wall outlet.

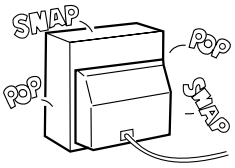
IF THE HDTV PROJECTION MONITOR DOES NOT OPERATE PROPERLY

22. If you are unable to restore normal operation by following the detailed procedure in your operating instructions, do not attempt any further adjustment. Unplug the Monitor and call your dealer or service technician.

23. Whenever the Monitor is damaged or fails, or there is a distinct change in performance, unplug the Monitor and have it checked by a professional service technician.



24. It is normal for some Monitor to make occasional snapping or popping sounds, particularly when being turned on or off. If the snapping or popping is continuous or frequent, unplug the Monitor and consult your dealer or service technician.

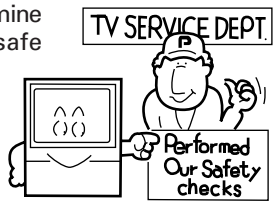


FOR SERVICING AND MODIFICATION

25. Do not use attachments not recommended by the Monitor's manufacturer as they may result in the risk of fire, electrical shock or injury to persons.

26. When replacement parts are required, be sure the service technician uses replacement parts specified by the manufacturer that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electrical shock, or injury.

27. Upon completion of any service or repairs to the Monitor, ask the service technician to perform routine safety checks to determine that the Monitor is in a safe operating condition.



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HOW TO USE THESE OPERATING INSTRUCTIONS

The following page is an example of the way that basic operating instructions are shown in this manual.
The explanation method varies from page to page.

AUTO CHANNEL PRESET

The broadcast frequencies that can be received depend on your area. Memorize the broadcast stations that can be received in your area in the presets.

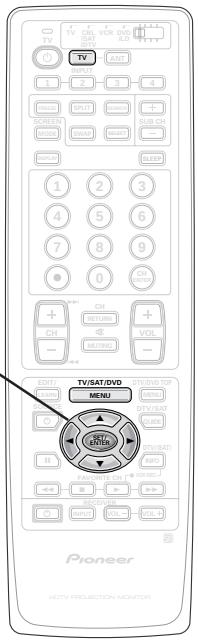
1 **Select TV.**

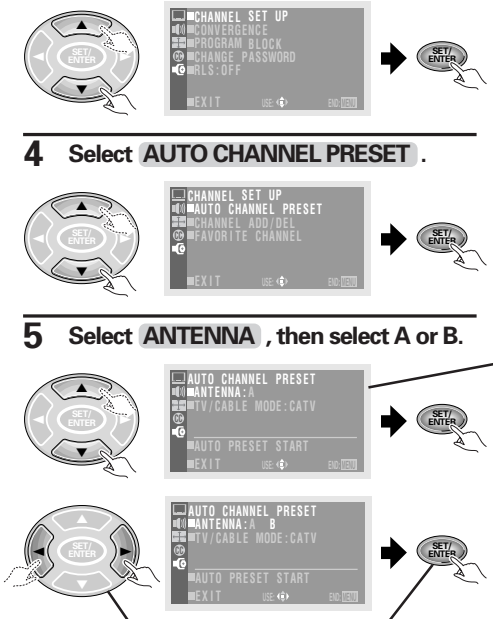
2 **Press MENU and select SET UP by using the ▲ or ▼ button and then pressing SET/ENTER. (Refer to page 24.)**

3 **Select CHANNEL SET UP in the same way.**

4 **Select AUTO CHANNEL PRESET .**

5 **Select ANTENNA , then select A or B.**





NOTE:
The CHANNEL SET UP cannot be selected unless the function is set up for TV.

26

Explanation of the function on this page.

Operating procedure

The button(s) that is/are used is/are shown in dark gray.

Screen during operation

Precautions etc.

Buttons used

INSTALLING THE MONITOR

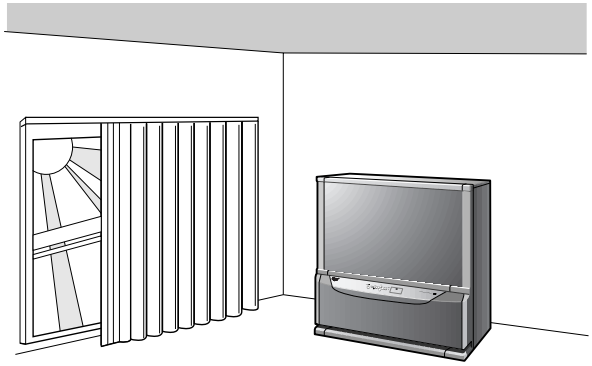
INSTALLATION PRECAUTIONS:

- **Keep away from magnetic fields**
  The picture may be distorted if strong magnetic fields are nearby. External speakers should be set at least 2 feet (60cm) away from the Projection Monitor. Electric fans and other motor driven appliances and toys may also be sources of magnetism.
- Bright light or direct sunlight will dull the picture. Position the Projection Monitor so that the screen faces away from windows.
- While the Projection Monitor is operating, it is cooled by airflow through ventilation holes in the rear and bottom. Therefore, avoid placing it in a location where the cooling airflow is hindered (e. g. against a wall).
- Avoid places subject to extremely high temperatures or humidity, or to temperatures of 41°F (5°C) or lower. Also avoid dusty places.
- If setting the Projection Monitor on a floor made of soft material, make sure that the floor will not damaged by the weight of the Projection Monitor.
- Do not put the Projection Monitor on a surface that is tilted, unsteady or prone to shake or vibrate. A shaky or slanted platform is dangerous.
- Cover shiny surfaces (floor and walls) with non reflective materials (carpet, rugs, wallpaper, etc.).

OPERATING PRECAUTIONS

Optimum viewing distance
10 to 23 feet is the range recommended for viewing comfort.

Adjust room illumination
Excessively bright or dim lighting may strain your eyes. Draw the curtains if necessary to shut out direct sunlight.



Condensation and picture blurring
- If the room temperature suddenly rises (or if the Projection Monitor is moved from a cool place to a hot place), condensation may form on the lenses resulting in picture distortion or color fading. If this occurs, simply wait a while (with the power switch ON) and the condensation will disappear.
- A gradual change in temperature can prevent condensation from forming.

CARE OF YOUR PROJECTION MONITOR

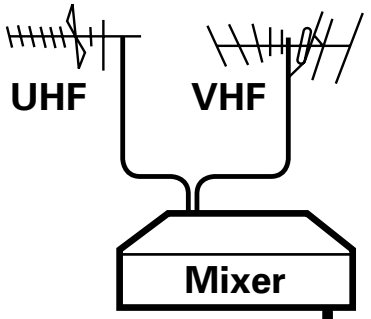
DO NOT:
- Do not use strong cleansers, solvents, polishes, or chemically treated cloths to clean the screen or cabinet.
- Do not touch or scratch the screen.
- Do not fasten or place rubber or vinyl items on the Monitor.
- Do not stick adhesive tape onto the Monitor.
- Do not put any object on the Monitor.

DO:
- Use a soft cloth to dust the screen and cabinet.
- Handle the screen with care to avoid scratches or damages.
- Ask your dealer or a Pioneer authorized service center to clean the interior of the monitor in your area if the picture brightness is too low even with the max. level. This may be caused by dust buildup inside.

BEFORE USE

Before you watch the TV, perform the following procedure.

This manual's illustrations shows the SD-643HD5 models.

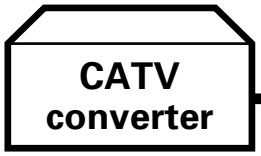


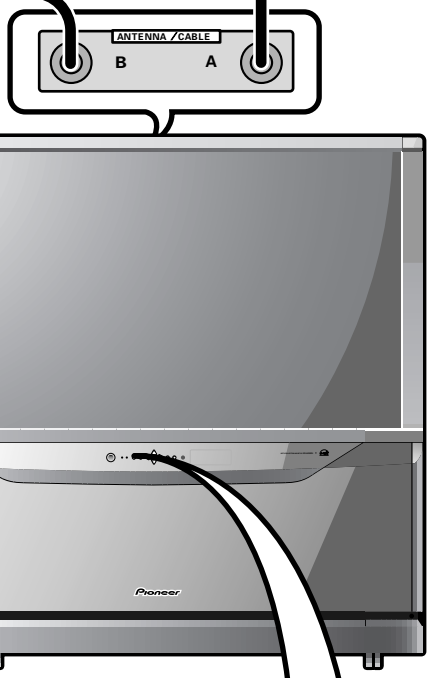
1

Connect the cables of the VHF antenna and UHF antenna to the ANTENNA A terminal. (See pages 12 and 13)

2

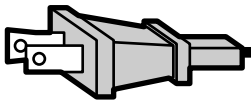
Connect the CATV converter to the ANTENNA B terminal. (See pages 12 and 13)





3

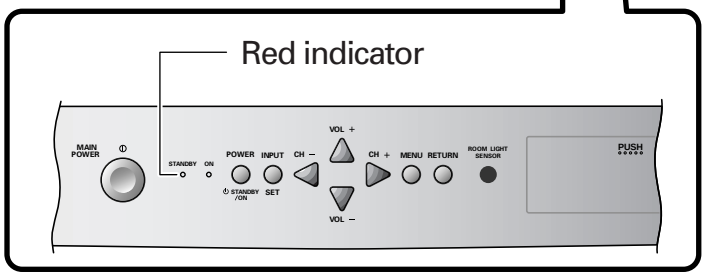
Connect the power cord to the AC wall socket.



4

Turn on the MAIN POWER button.

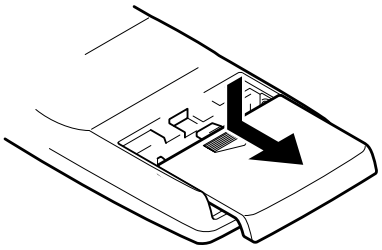
When the MAIN POWER is on, the red STANDBY indicator lights up. In this state, the POWER STANDBY/ON button or the TV Power button of the remote control unit can be used to turn on and off the Monitor.



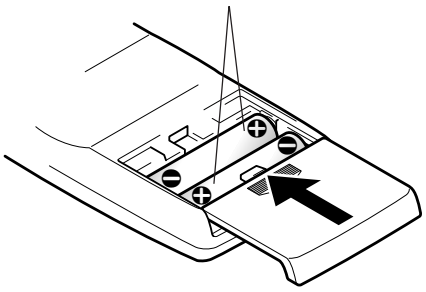
5

Inserting batteries into the remote control unit

1.



2. Two DURACELL® 'AA' MN1500 1.5V ALKALINE dry cell batteries



⚠ CAUTION

Incorrect use of batteries may lead to leakage or rupture. Always be sure to follow these instructions.

A.
Never mix new and used batteries.

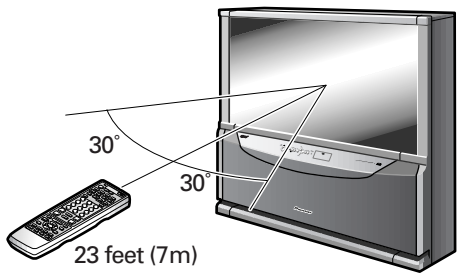
B.
Batteries of the same size may have different voltages depending on their type. Do not mix different types of batteries.

C.
Insert batteries so that the plus (+) and minus (–) sides are aligned according to the markings in the battery case.

D.
When not using the remote control unit for a long period of time (1 month or more), remove the batteries from the remote control unit to prevent leaking of battery fluid. If battery liquid has leaked, thoroughly wipe the inside of the case unit all liquid is removed, and then insert new batteries.

E.
Do not charge, short, disassemble or throw the provided batteries in a fire.

Remote control operation range



- Furniture and other obstacles may block the infrared light beam so that it cannot reach the sensor behind the Projection Monitor's screen.
- Performance of the remote control unit is adversely affected by strong fluorescent light. Keep such lights away from the screen.

Battery replacement

Replace the batteries when any of the following phenomena is observed.

- The transmitting LED does not blink even when the TV Power button is pressed.
- The remote control operation range has reduced.

When replacing the batteries, prepare new batteries before removing the old batteries.
Be sure to close the battery case cover after battery replacement.

NOTE:

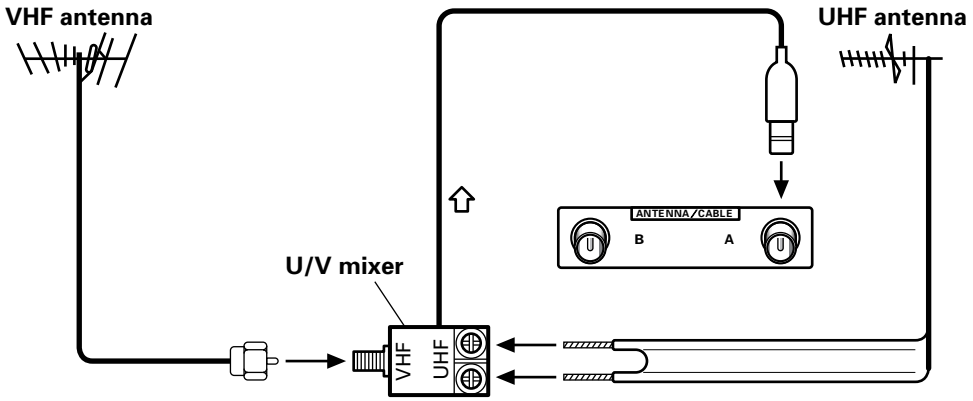
- *Even when batteries are removed, learned commands remain in memory for about 15 minutes.*
- *If you remove the batteries, and press any button, the memory is erased in a few seconds.*

CONNECTING THE ANTENNA

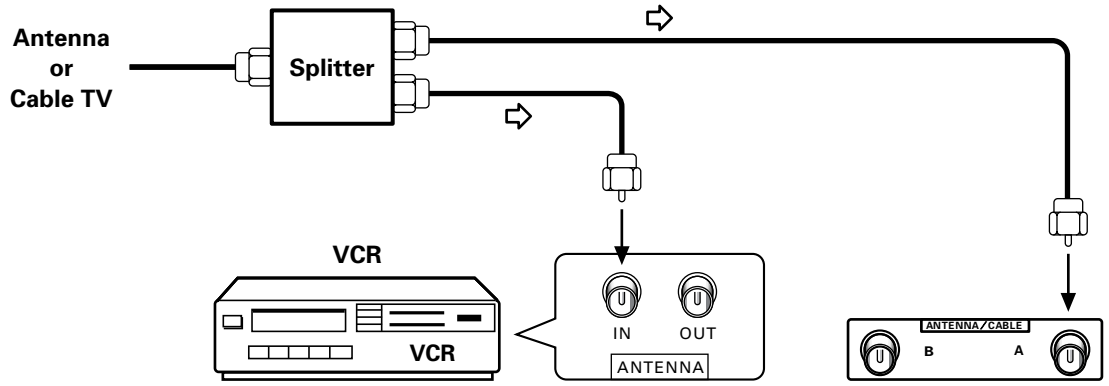
- A good color picture depends on a good TV signal. So does good multichannel (stereo program and SAP) sound. Ask your dealer for advice on how to install your external antenna to receive the best possible signal.
- If you subscribe to Cable TV or have a central antenna for your building, you will not need an external antenna.

Connect the TV signal source to your Monitor properly.
Use a 75-ohm coaxial cable with an F-type connector and connect the cable as shown in the illustration.

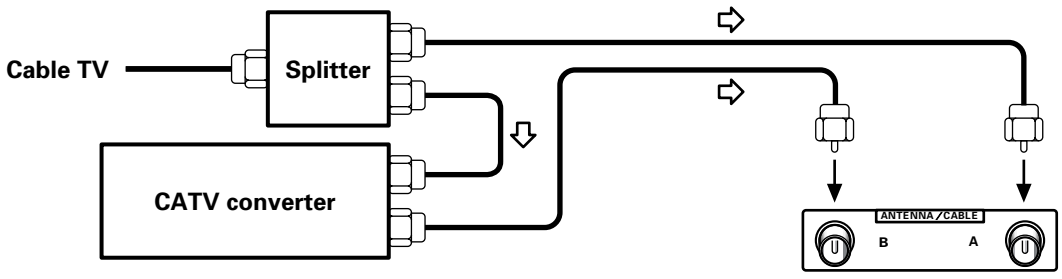
Connecting VHF/UHF antenna



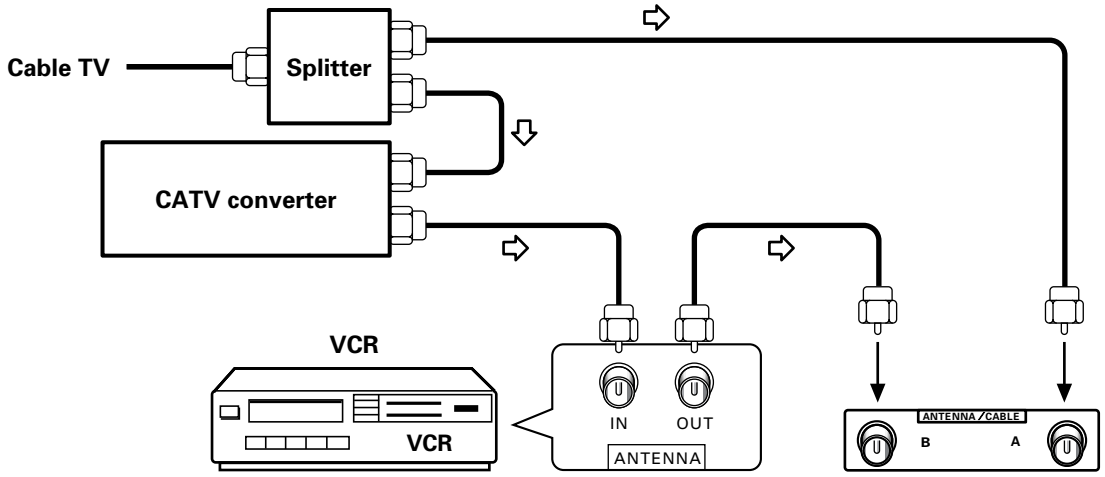
Connecting VHF/UHF antenna with VCR



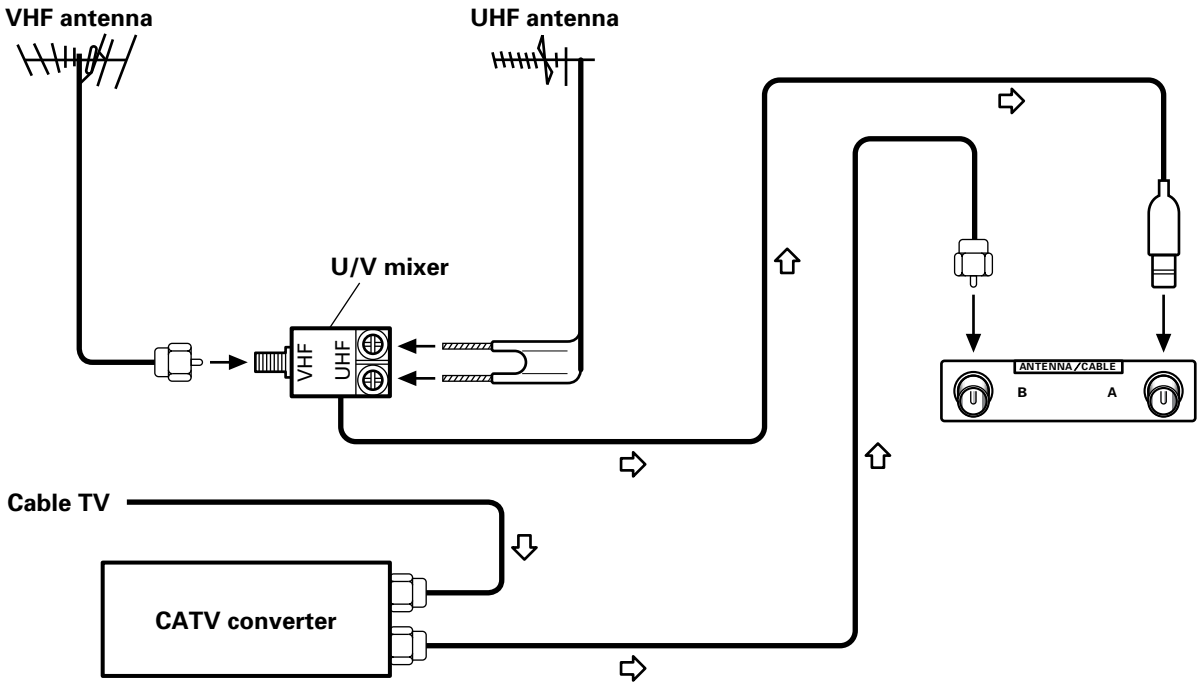
Connecting the CATV converter



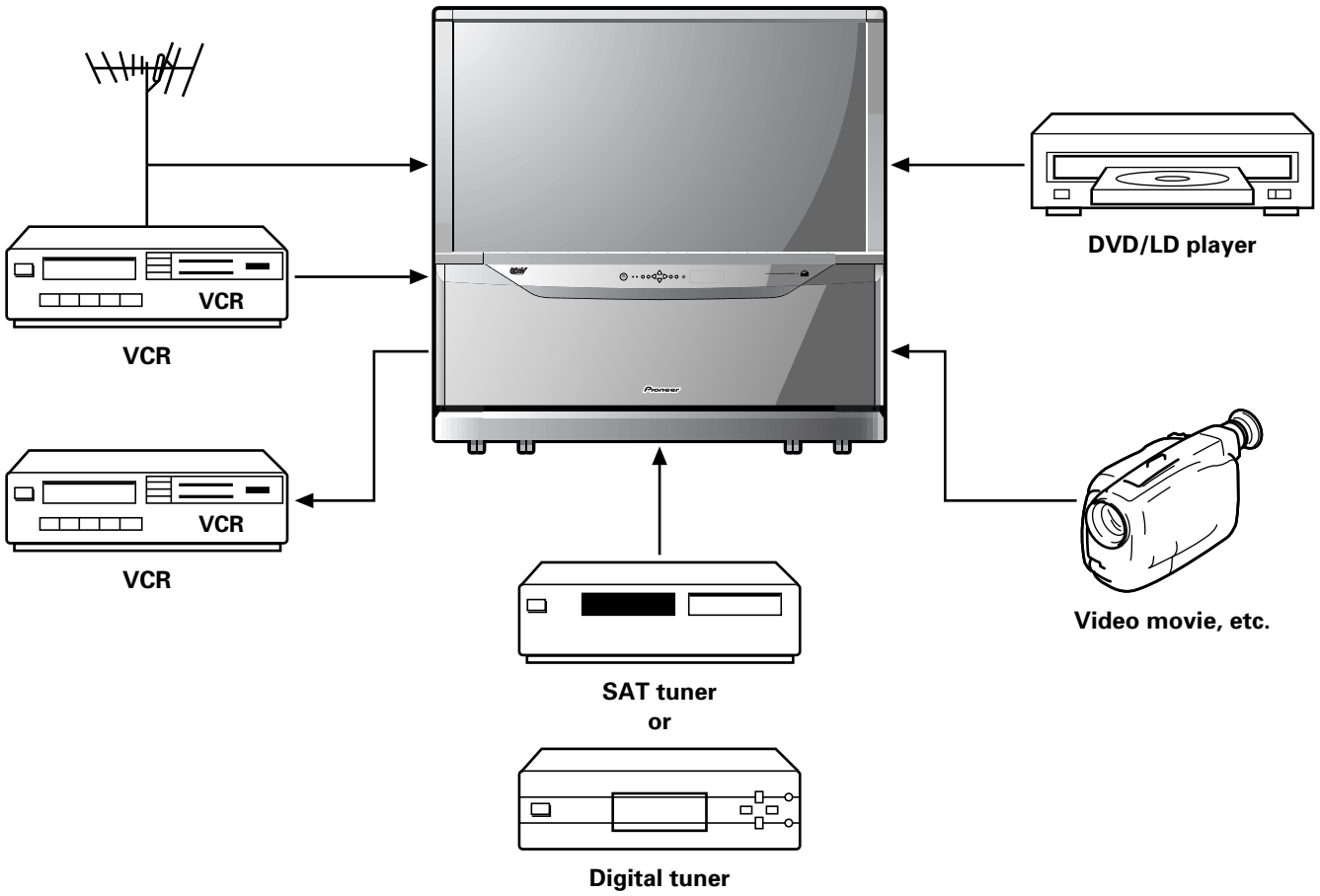
Connecting the CATV converter with VCR



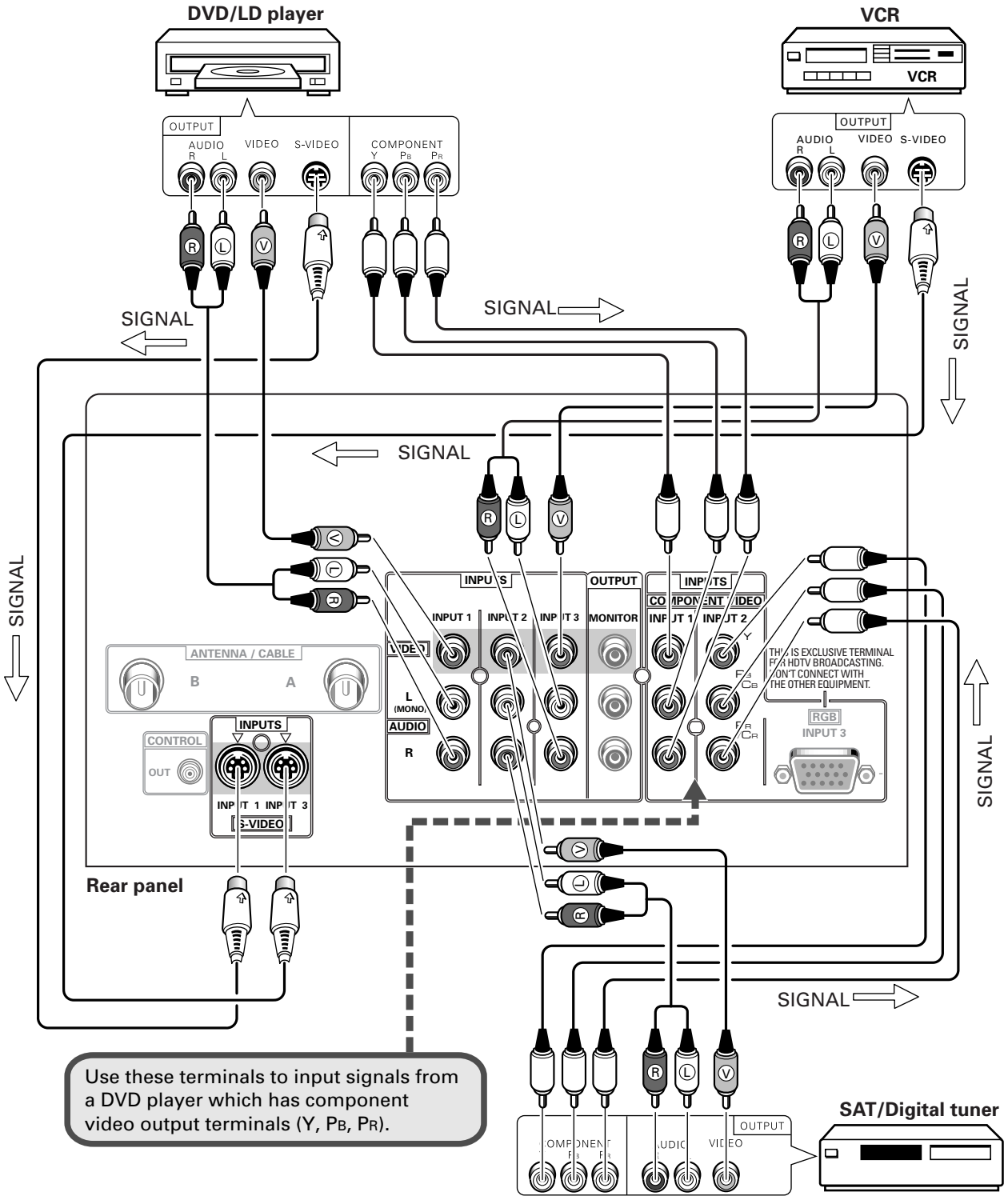
Connecting VHF/UHF antenna and CATV converter

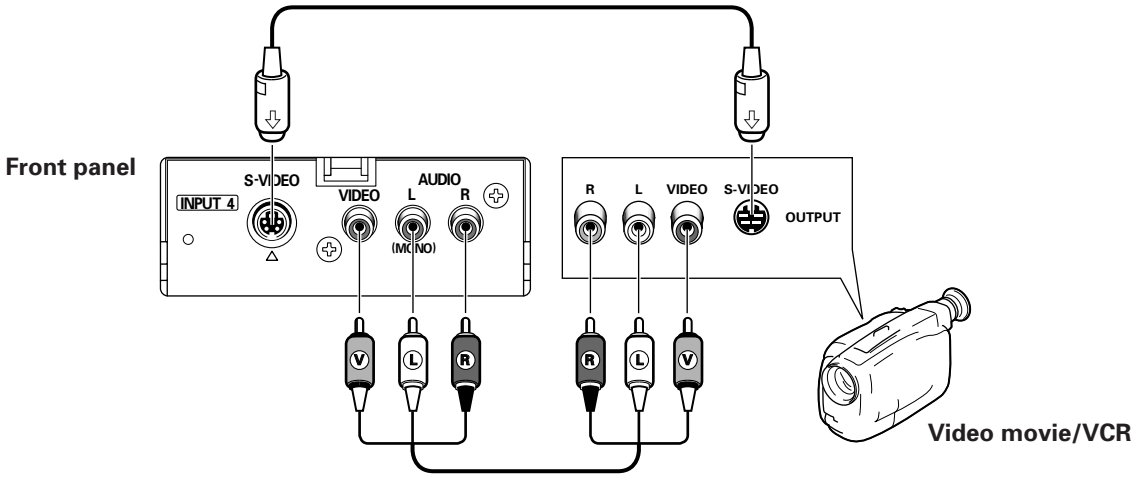


CONNECTING VIDEO/AUDIO EQUIPMENT



- Refer to the instructions of your VCR or DVD/LD player for the detailed connections.
- Before making or changing connections, set the power switch to off and unplug the power cord from the AC outlet.
- If both the VIDEO terminal (pin-jack type) and S-VIDEO terminal are connected, the signals from the S-VIDEO terminal will have priority.
- Only the INPUT 1 and INPUT 2 jacks can input the component video signal.
- When the component signal and other signals are input to the INPUT 1 or INPUT 2 jacks, the component signal will be given priority.


DVD/LD player
VCR
OUTPUT
AUDIO
R
L
VIDEO
S-VIDEO
COMPONENT
Y
PB
PR
SIGNAL
ANTENNA / CABLE
B
A
CONTROL
OUT
INPUTS
INPUT 1
INPUT 2
INPUT 3
MONITOR
L
(MONO)
AUDIO
R
RGB
INPUT 3
Rear panel
Use these terminals to input signals from a DVD player which has component video output terminals (Y, PB, PR).
SAT/Digital tuner



INPUT jacks

There are 4 sets of inputs for VCR and DVD/LD players. Use RCA-type pin plug cords (the same as those used in Hi-Fi systems) for connections. When the audio source to be connected is mono, connect the source to the L-(MONO) jack.

MONITOR OUTPUT jacks

These are used for connecting the monitor to a VCR for recording, or for linking it to another monitor. These jacks output the video and audio signals of the source currently selected by the INPUT selector. Connect these output jacks to your VCR's inputs. Connect the VCR's outputs to the monitor's VIDEO inputs.

S-VIDEO INPUT jacks

- Inputs signals from a DVD/LD player that has an S-VIDEO output jack.
- When the signal input from the S-VIDEO INPUT jack is output from the MONITOR OUTPUT jack, the output signal will be a composite of Y and C.

COMPONENT VIDEO INPUT jack

Inputs three signals – Y, P_B (C_B) and P_R (C_R) – output from DVD players and the like.

Input formats in which images can be received.

	Format	Horizontal frequency	Vertical frequency
DVD player, etc.	480 i	15.734 kHz	60 Hz
Digital tuner, etc.	1080 i	33.75 kHz	60 Hz
	480 p	31.468 kHz	60 Hz

RGB INPUT jack

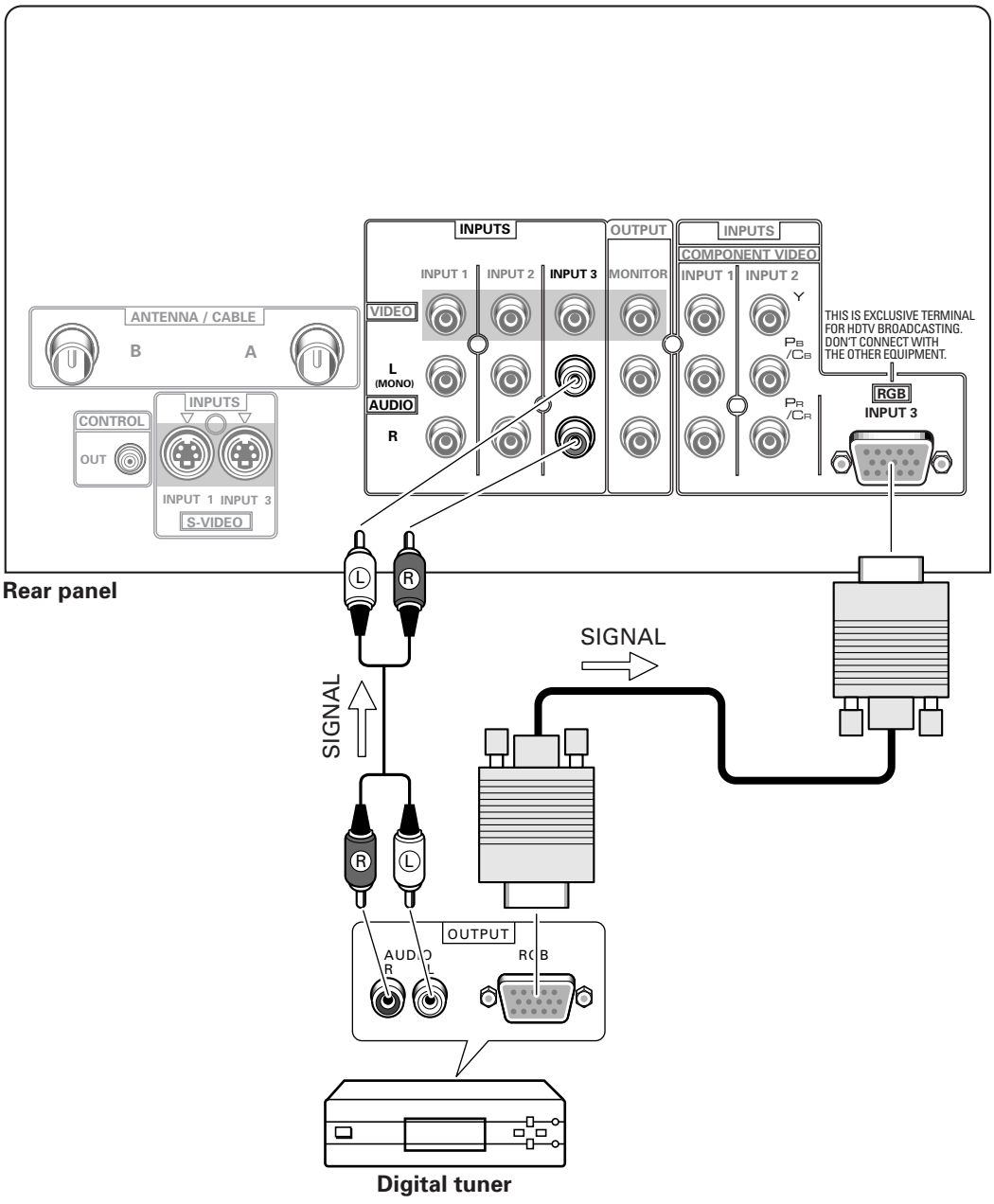
Inputs five signals – R, G, B, H and V – output from digital tuners and the like.

Input format in which images can be received.

	Format	Horizontal frequency	Vertical frequency
Digital tuner	1080 i	33.75 kHz	60 Hz

NOTES:

- *SPLIT screen, FREEZE screen and SEARCH screen functions cannot be used when 1080i or 480p component signals are input.*
- *Signals from MONITOR OUTPUT jacks will not be output when component signals or RGB signals are input.*
- *The RGB input jack is designed for use in connecting a digital tuner with RGB signal output, and it should accordingly never be used for connecting to a personal computer or other device.*

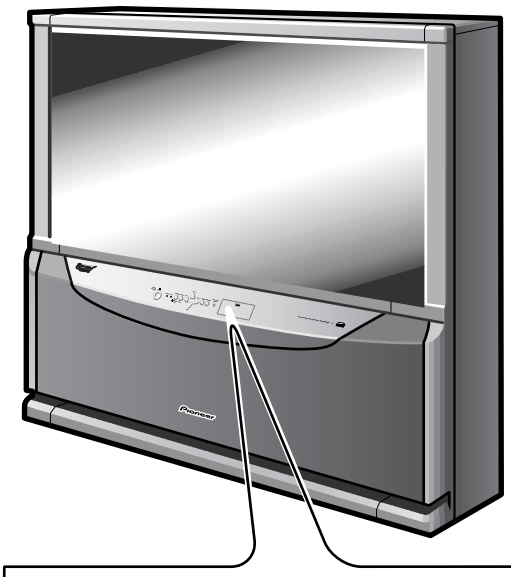


NOTE:
When the 3 signals, RGB signal, composite signal, and S signal, are simultaneously input to INPUT 3, the RGB signal will be displayed on screen.

FRONT PANEL FUNCTIONS

A flip-down door conceals the INPUT 4 jacks. Push gently and release, to open the door. To close the door, lift it back up into place.

NOTE:
If you accidentally pull the door, it may not shut properly. Push the door back in to shut it.



① MAIN POWER ⏻ (OFF/ON) button

If the button is OFF, the power of the monitor is shut off and ③ STANDBY/ON button on the receiver or TV power on the remote control will not function. Pressing the button again will turn the monitor ON and the monitor enters the standby mode. In the standby mode, you can turn on the monitor using the ③ STANDBY/ON button on the monitor or TV power on the remote control.

② POWER STANDBY/ON indicators

red: STANDBY
green: ON

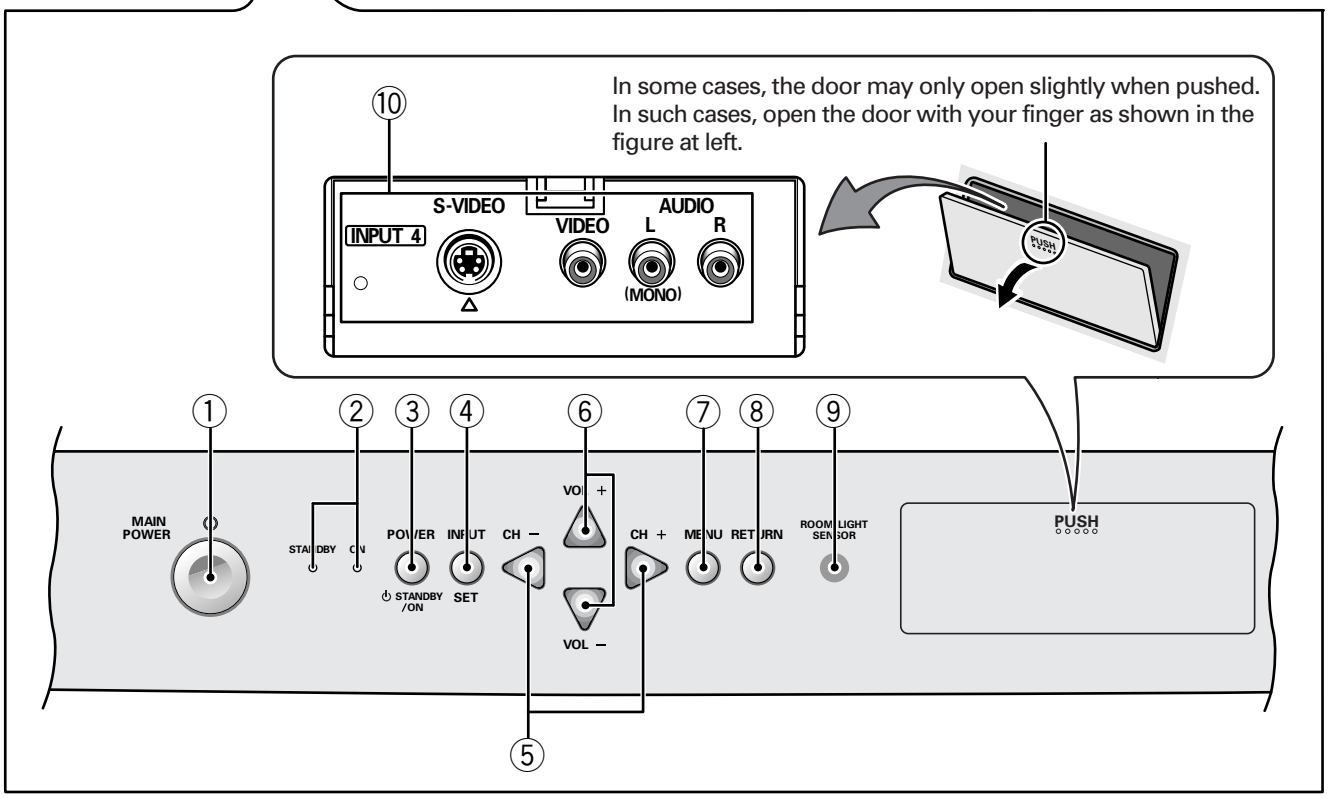
③ POWER (⏻ STANDBY/ON) button

Switches the monitor between on and standby (note that the monitor consumes a small amount of power (0.3 W) in standby mode.

④ INPUT selector and SET button

Press to select your program source. Each press of the INPUT selector button changes the selection to the next source.

While the menu is displayed, it performs the same operation as the SET/ENTER button on the remote control.



⑤ CH (channel) +, – and ◄, ► buttons

Press plus (+) or minus (–) to tune to a higher or lower channel. Only the preset channels can be tuned in using these buttons.
Press to select or adjust items on the menu screen.

⑥ VOL (volume) +, – and ▲, ▼ buttons

Press plus (+) button to increase the volume, press minus (–) button to decrease it.
Press to select or adjust items on the menu screen.

⑦ MENU button

Press to turn the menu on.
Press again to return to normal TV screen.

⑧ RETURN button

Press to set the Projection Monitor to its initial mode.

Initial mode

Input selector:	Set to TV.
TV channel:	Remains at the last channel set.
VOLUME:	Remains at the last setting.
MUTING:	OFF
PICTURE	
MODE:	STD
Parameters:	Set to 0. (Only contrast +30)
COLOR TEMP:	STD
PURECINEMA:	ON
SVM:	ON
3D Y/C LEVEL:	STD
3D NR LEVEL:	MID
FLESH TONE:	ON
BLK ENHANCE:	ON
SOUND	
MTS:	MAIN
Parameters:	Set to 0.
SURROUND:	OFF
STABLE VOLUME:	OFF
SCREEN	
MODE:	NATURAL WIDE
V. POSITION:	NOT USED
CC:	OFF
RLS:	OFF

- When this button is pressed while adjusting the MULTI-POINT convergence, the MULTI-POINT convergence returns to the initial mode.

⑨ ROOM LIGHT SENSOR (RLS)

Sensor to detect the room brightness.

⑩ INPUT 4 jacks

These inputs are for Video Movie and VCR. Use RCA-type pin plug cords (the same as those used in Hi-Fi systems) and S-VIDEO cords for connections. When the audio source to be connected is mono, connect the source to the L-(MONO) jack.

CAUTION:

Do not press any operation button on the Projection Monitor or the remote control unit while recording. Signals from the MONITOR OUTPUT jacks may be temporarily interrupted when a button is pressed.

ATTENTION

The HDTV Projection Monitor will not function properly in the following cases.

- An electrical discharge in the CRT.
- Lightning storms.
- High static electricity environment.
- Poor voltage regulation in the power source.

If the Projection Monitor does not operate properly, reset it as follows:

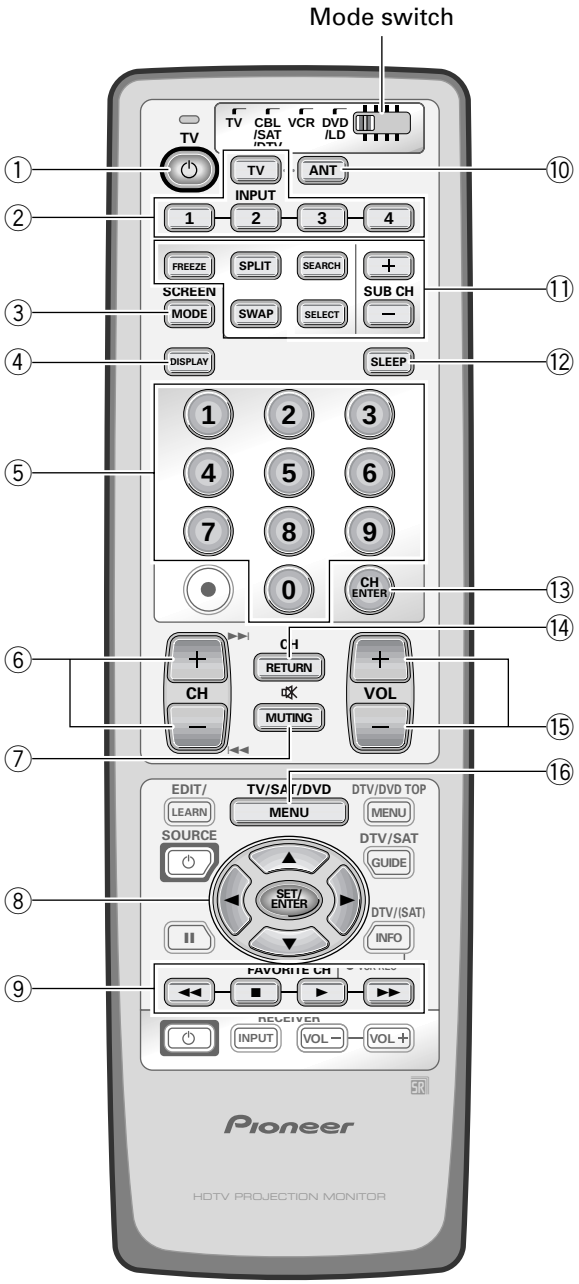
1. Turn off the power of the unit with the ① MAIN POWER button.
2. After approximately 1 minute, turn on the power with ① MAIN POWER button and ③ STANDBY/ON button.

If the normal operation cannot be restored after the above treatment, immediately unplug the power cord and call your nearest PIONEER-authorized service center.

NOTES:

- *On rare occasions, an electrical discharge may occur inside the CRT*. It makes a short, sharp pop and either no sound is produced or the volume level changes by itself. The SPLIT screen and SEARCH screen functions will be cancelled automatically if an electrical discharge occurs when this function is engaged.*
  **CRT: Cathode-ray Tube*
- *When an electrical discharge distorts the screen and the TV power has been automatically shut off, it can turn on.*
  If you notice any abnormality of the screen, turn off the MAIN POWER button for a few minutes then turn it on.
  This is not a malfunction.

REMOTE CONTROL UNIT FUNCTIONS



Set the mode switch to TV.

① **⏻ TV Power button (STANDBY/ON)**
Turns the power of the monitor on and off.

② **INPUT Selector buttons (TV, INPUT 1 to INPUT 4)**
Press the button to select the source you wish to watch. The screen will display your selection.

③ **SCREEN MODE button**
Press to select the SCREEN MODE. (Refer to page 39.)

④ **DISPLAY button**
Press to display the input source, channel, setting and other screen indicators for a few seconds.

⑤ **Direct channel selection buttons**
Press the button (or buttons) that corresponds to the channel that you wish to watch.

⑥ **CH (channel) +, – button**
Press plus (+) or minus (–) to tune in a higher or lower channel. Only the preset channels can be tuned in using these buttons.

⑦ **MUTING button**
Press to temporarily turn off the sound. Press again to return to the previous volume level.

⑧ **Select/Adjust/Set buttons (SET/ENTER, ◄, ►, ▲, ▼)**
◄, ►, ▲, ▼: Press to select or adjust items on the menu screen.
SET/ENTER: Press to activate the selected function.

⑨ **FAVORITE CH buttons**
These buttons call up the channels that have been assigned to them.

⑩ **ANT (antenna selector) button**
Press to switch between ANTENNA-A and ANTENNA-B when you wish to watch TV.

⑪ **SPLIT/SEARCH screen buttons**

FREEZE: When this button is pressed with the regular screen, the screen will change to the SPLIT screen and the picture at the time the button was pressed will become the sub-picture, displayed as a frozen image.

SPLIT: Press to turn the SPLIT screen function on and off.

SEARCH: Press to select the SEARCH screen mode.

SWAP: Press to switch the main picture and sub picture when in SPLIT or 3-SEARCH screen mode.

SELECT: Selects the screen for switching the channel or input source.*1

SUB CH +, –: Used to switch the channel for the sub-picture of the SPLIT screen.

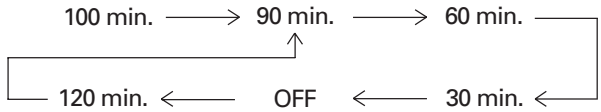
⑫ **SLEEP timer button**

Each time this button is pressed, the display will change as follows.

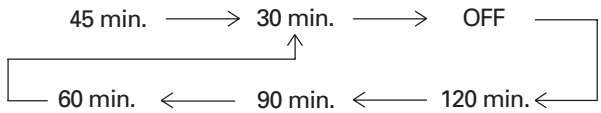
The display varies according to the remaining time.

Example:

If the remaining time is 100 minutes



If the remaining time is 45 minutes



⑬ **CH ENTER button**

Fix the selected channel with the direct channel selection buttons.

⑭ **CH RETURN (channel return) button**

Press to switch between the current channel and the channel you were watching immediately before.

⑮ **VOL (volume) +, – buttons**

Press plus (+) button to increase the volume, press minus (–) button to decrease it.

Volume level will appear on the screen as numbers and a bar graph. The maximum volume level is "63".

The display will disappear from the screen after 2 seconds.

⑯ **MENU button**

Press to turn on the menu screen for use in function selection.

Press again to return to normal TV screen.

*1 With the 9-SEARCH screen, the search picture's input source and channel cannot be switched.

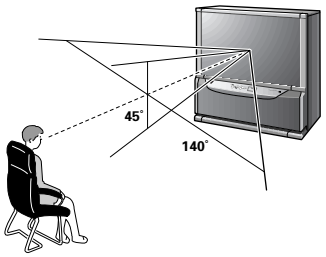
NOTE:

If the remote control unit is left in total darkness for a long period of time, it will not emit light, but will not be damaged. In this case, place it in a bright place for a little while before using it.

TO WATCH TV

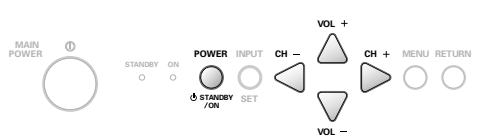
Best Horizontal and Vertical Viewing Angle

- The optimum viewing angle is 140˚ in horizontal and 45˚ in vertical.
- Watch from at least 10 feet (3m) away from the screen (optimum viewing distance is 10 to 23 feet).



Remote control unit

Control panel of the monitor



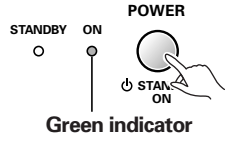
Turn on the MAIN POWER button.

1 Turn on the POWER.

The green ON indicator lights up.

Remote control unit

Control panel of the monitor



2 Set the mode switch to TV and then press the TV button.

Remote control unit

3 Select antenna A or B.

Check the input signals at the ANTENNA A and B terminals.

Remote control unit

4 Select a channel.

There are three methods for this.

① **Select by pressing the number button**

(Example)

Channel 5 (5) → (CH ENTER)

(Or press (0) and then press (5) within 2 seconds of during so.)

Channel 12 Press (1) and then press (2) within 2 seconds of during so. → (CH ENTER)

- *After pressing a number button, even if you do not press the CH ENTER button, the channel will be switched to the one selected within 2 seconds.*
- *Depending on the channel, this switch may occur immediately after the number button is pressed.*

	VHF L	MID		VHF H	SUPER	HYPER									UHF
TV	2-6	———		7-13	———	———									14-69
CATV	2-6 (STD)	A-5(95)	A(14)	7-13	J(23) Q(30)	W+1(37)	W+11(47)	W+21(57)	W+31(67)	W+41(77)	W+51(87)	W+61(102)	W+71(112)	W+81(122)	—
		A-4(96)	B(15)		K(24) R(31)	W+2(38)	W+12(48)	W+22(58)	W+32(68)	W+42(78)	W+52(88)	W+62(103)	W+72(113)	W+82(123)	
		A-3(97)	C(16)		L(25) S(32)	W+3(39)	W+13(49)	W+23(59)	W+33(69)	W+43(79)	W+53(89)	W+63(104)	W+73(114)	W+83(124)	
		A-2(98)	D(17)		M(26) T(33)	W+4(40)	W+14(50)	W+24(60)	W+34(70)	W+44(80)	W+54(90)	W+64(105)	W+74(115)	W+84(125)	
		A-1(99)	E(18)		N(27) U(34)	W+5(41)	W+15(51)	W+25(61)	W+35(71)	W+45(81)	W+55(91)	W+65(106)	W+75(116)		
			F(19)		O(28) V(35)	W+6(42)	W+16(52)	W+26(62)	W+36(72)	W+46(82)	W+56(92)	W+66(107)	W+76(117)		
	1-6 (HRC) (IRC)		G(20)		P(29) W(36)	W+7(43)	W+17(53)	W+27(63)	W+37(73)	W+47(83)	W+57(93)	W+67(108)	W+77(118)		
			H(21)			W+8(44)	W+18(54)	W+28(64)	W+38(74)	W+48(84)	W+58(94)	W+68(109)	W+78(119)		
			I (22)			W+9(45)	W+19(55)	W+29(65)	W+39(75)	W+49(85)	W+59(100)	W+69(110)	W+79(120)		
						W+10(46)	W+20(56)	W+30(66)	W+40(76)	W+50(86)	W+60(101)	W+70(111)	W+80(121)		

CABLE (CATV) CHANNEL ASSIGNMENT TABLE

In the cable tuning mode, channels can only be assigned to numbers 01 to 125. The specific channel number assignments and the corresponding alphabet designation are shown at the bottom left of the channel table.

For example: Channel number '14' corresponds to midband cable channel 'A'.

NOTE:

Cable (CATV) services can vary according to area. The channel number assignments shown in the channel table may not correspond with the channel numbers used by your local cable company. Direct tuning to cable channels without using the cable company converter 'or preselector' will depend on the specific channels in use by the cable company. Direct tuning to cable channels is limited to unencoded (unscrambled) channels only. Check with your local cable company for compatibility requirements.

To turn off the sound

Press the MUTING button.

When mute is turned on, a volume indicator will appear in red on the screen (and will disappear in a few seconds).

If the MUTING button is pressed while a closed caption signal is being received, CC/TEXT will be displayed. (CC: when ON IF MUTE is selected)

Press MUTING again to return to the previous volume level.

Auto power off function

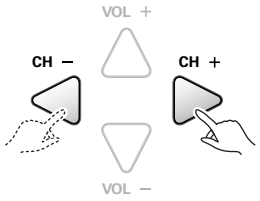
If the monitor is receiving no input signals in TV mode, its power will turn off (go on standby) after some time has passed.

② **Select using the TV CH+/– button**

The channels will switch according to the order set by channel preset (See page 26).

Remote control unit

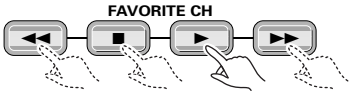
Control panel of the monitor



③ **Select using the FAVORITE CH button**

Select your desired channel from the 4 in the memory of each button: blue, green, red and yellow.

Remote control unit

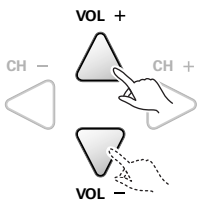


- Each time the button is pressed, the channel will be changed in order of the 4 channels in that button's memory.
- The desired channels can be set. (See page 47.)
- When you select a channel using the FAVORITE CH button, step 3 (Select antenna A or B) is not necessary.

5 Adjust the volume.

Remote control unit

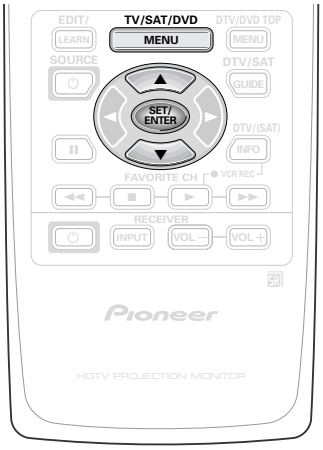
Control panel of the monitor

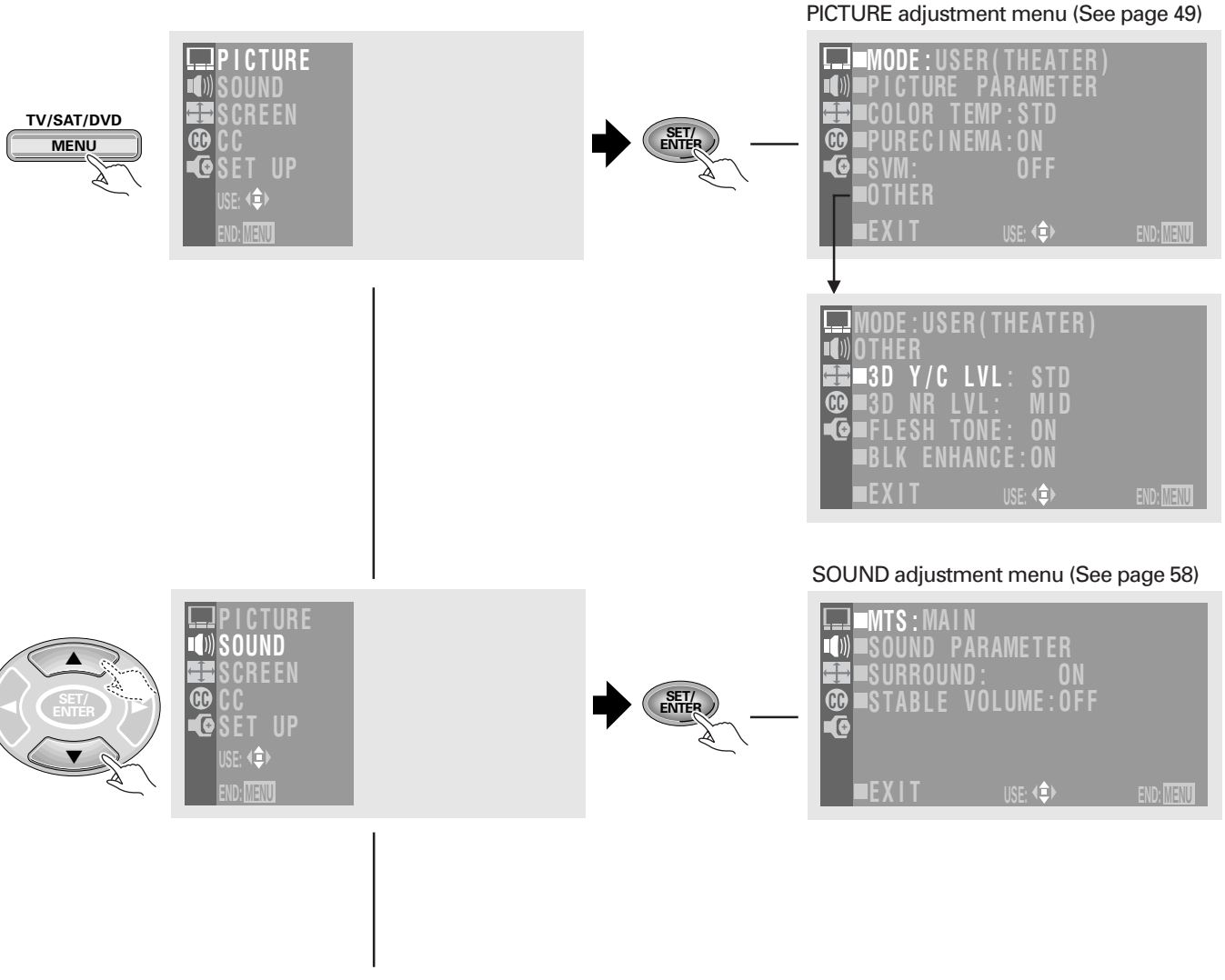


CHECKING THE MENU

Press MENU on the remote control unit.
The MAIN MENU will be displayed on the screen.
Select the desired menu item using ▲ or ▼ button of the remote control unit, and press SET/ENTER button to perform the desired operations or mater settings.

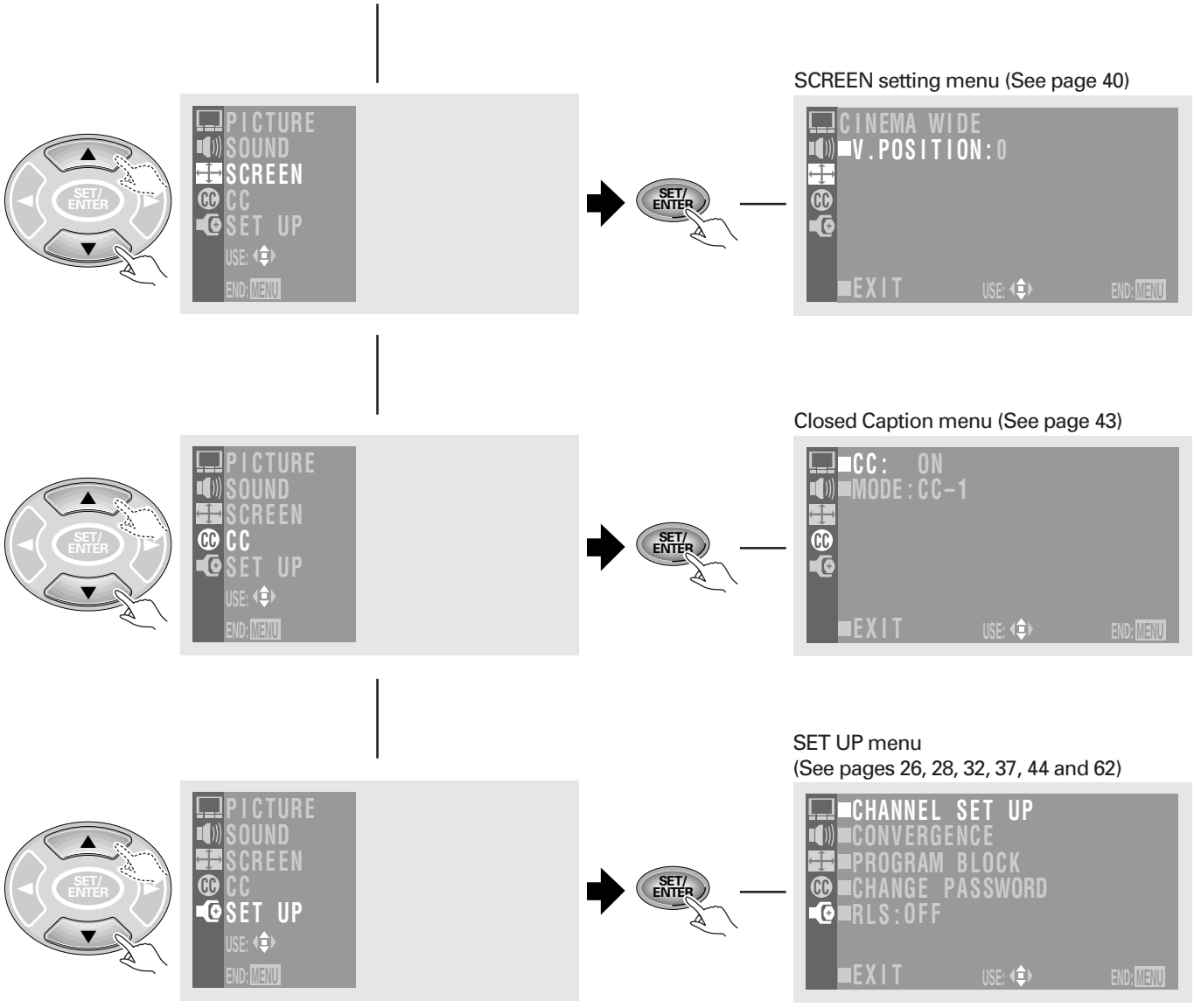
- When the menu screen appears, the mode will switch from SCREEN to FULL. When all menu selections have been made, the previous screen mode will be restored.





PICTURE adjustment menu (See page 49)

SOUND adjustment menu (See page 58)



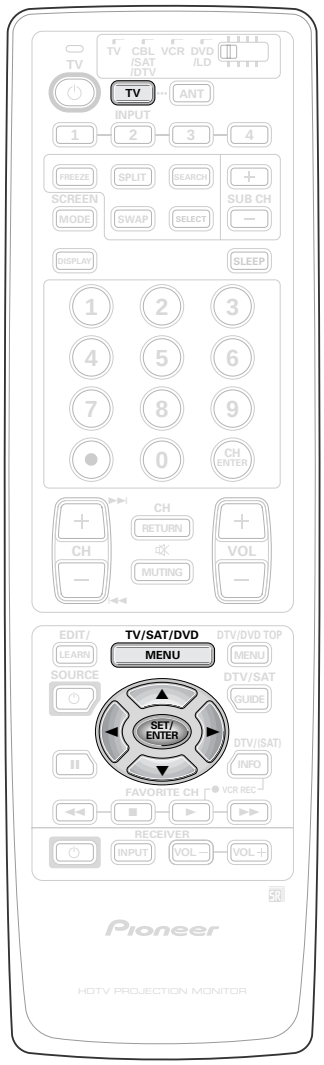
On screen indicators

USE: Indicates in light cyan the buttons that can be used on the menu screen displayed.

END: End is for turning off the menu screen by pressing the MENU button.

EXIT: To return to the previous menu screen, use the ▲ or ▼ button to move to EXIT and then press SET/ENTER.

AUTO CHANNEL PRESET



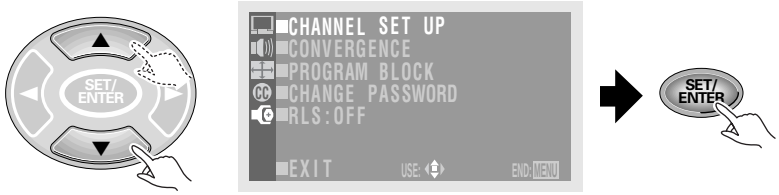
NOTE:
The CHANNEL SET UP cannot be selected unless the function is set up for TV.

The broadcast frequencies that can be received depend on your area. Memorize the broadcast stations that can be received in your area in the presets.

1 Select TV.

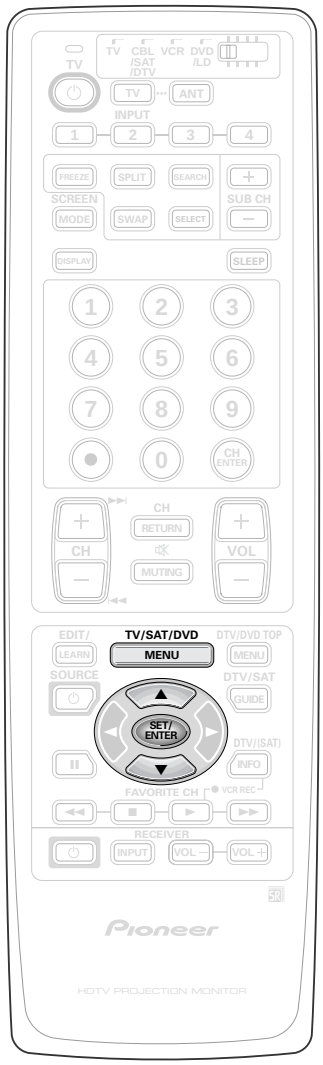
2 Press MENU and select SET UP by using the ▲ or ▼ button and then pressing SET/ ENTER. (Refer to page 24.)

3 Select CHANNEL SET UP in the same way.



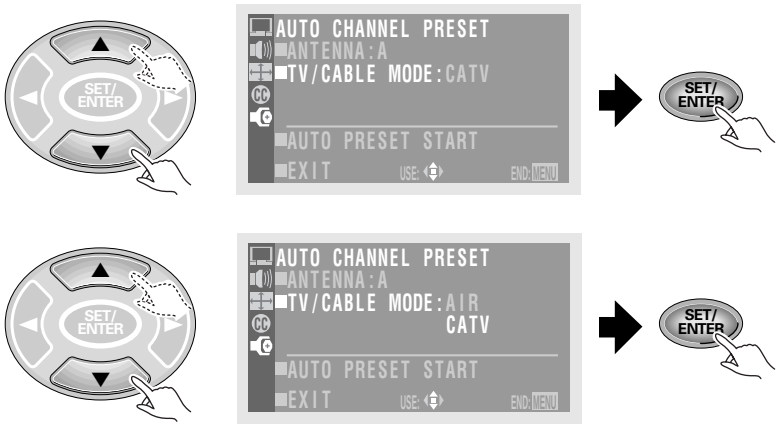
4 Select AUTO CHANNEL PRESET .

5 Select ANTENNA , then select A or B.



NOTE:
If AUTO CHANNEL PRESET is not performed, refer to the steps on page 44 and onwards to preset channels.

6 Select TV/CABLE MODE, then select the broadcast system to be received from AIR or CATV.



7 Select AUTO PRESET START.

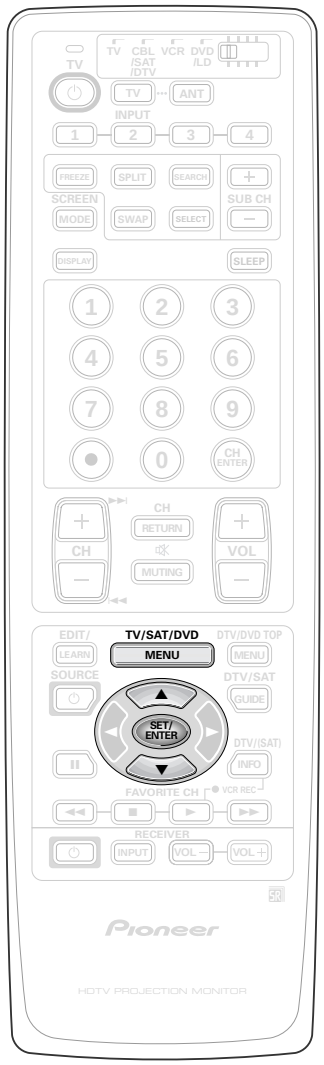
- AUTO CHANNEL PRESET starts.

- When AUTO CHANNEL PRESET ends, the Monitor will return to step 5. Perform steps 5 through 7 if the other antenna is also being used.
- You can give a name to broadcast channels that have been stored in memory with AUTO CHANNEL PRESET. (Refer to page 44 to 46.)

8 After setting, press MENU to turn the menu off.

CONVERGENCE ADJUSTMENT

Before convergence adjustment*1, please choose a stabilized input signal*2 in order to display a stable cross pattern.



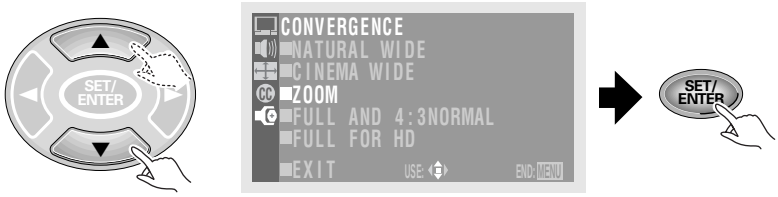
*1 Convergence adjustment ..... Color deviation adjustment
*2 Stabilized input signal ..... Examples, DVD player, digital tuner, etc.

Due to the differing magnetic fields in different locations, you may experience color deviation, that is inaccurate colors. This is called misconvergence. If your colors seem inaccurate, realign the color convergence with the method below. Before doing this mate sure you warm up the TV for at least 30 minutes. A color convergence for each of 5 screen sizes, Natural wide, Cinema wide, Zoom, Full and 4:3 normal and Full for HD is necessary. See page 39 for screen sizes.

1 Press MENU and select SET UP by using the ▲ or ▼ button and then pressing SET/ ENTER. (Refer to page 24.)

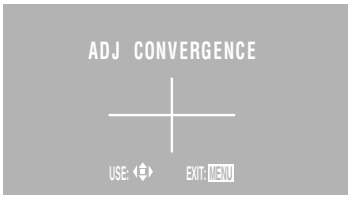
2 Select CONVERGENCE in the same way.

3 Select screen mode.



- This accesses the center convergence adjustment.

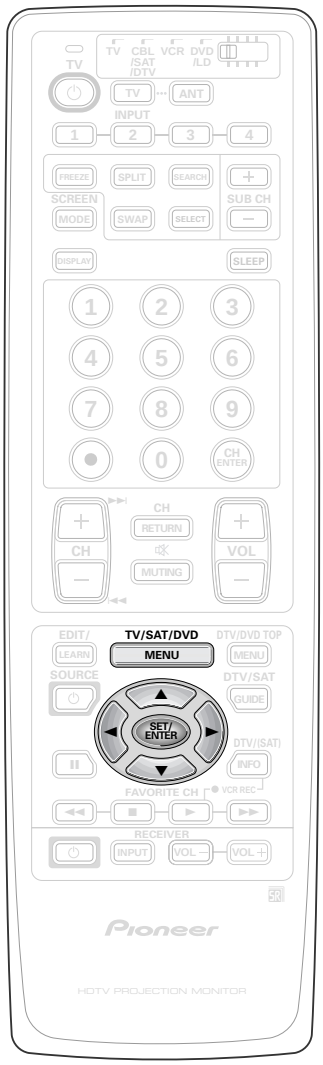
When the cross pattern is white



The color is converged. Press SET button twice, proceed onto page 63 and perform MULTI-POINT convergence.

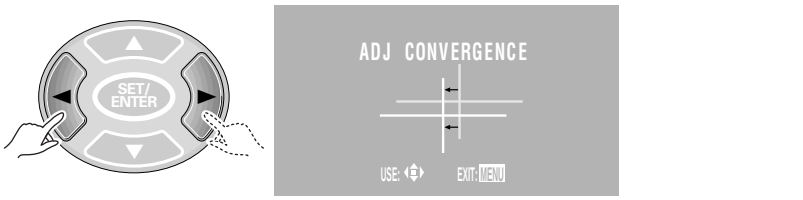
If the cross pattern shows other colors or when one side of the white line is red or blue

This indicates that the color is misconverged. Proceed to step 4 and perform the adjustment.

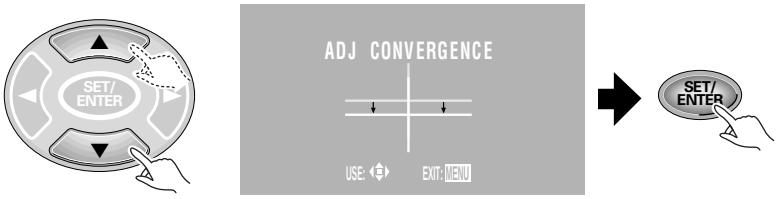


4 Move the red line onto the green line.

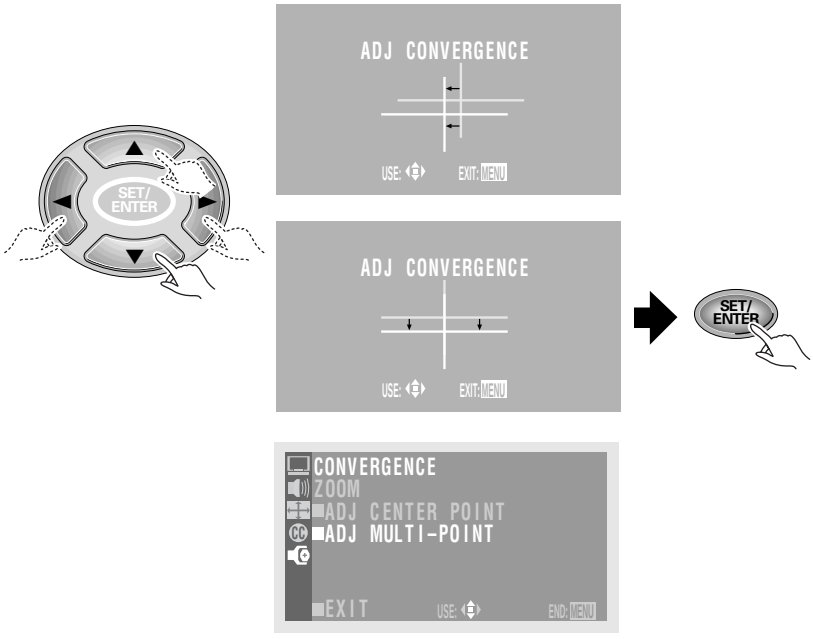
Move the vertical line.



Move the horizontal line.



5 Move the blue line onto the yellow line.



- When ADJ CENTER POINT is selected, center convergence adjustment will be accessed.
- Select ADJ MULTI-POINT to perform fine convergence tuning. See page 63 for further information on multi-point convergence tuning.

6 After completing the convergence adjustment, press MENU to turn the menu off.

PROGRAM BLOCK (V. CHIP) FUNCTION

Since laws have been passed in the United States requiring a way of blocking undesirable programming, the V-chip has become a required component in television sets. The V-chip is a computer chip which decodes signals added to broadcast signals transmitted by television broadcasters. These signals are classified by programming content (e.g., amount of violence or sexual content) and age, and viewers may specify settings which block certain types of programming.
Program blocking may be set to a specific level judged by parents to be undesirable for children depending on their age and the content of the programming in question. The V-chip makes it impossible for such children to view programs with ratings exceeding the specified level.

The V-chip uses the following rating system.

<U.S.A. RATING SYSTEM>

MPAA RATING

RATING		
Age-Base	G	GENERAL AUDIENCES. All ages admitted.
	PG	PARENTAL GUIDANCE SUGGESTED. Some material may not be suitable for children.
	PG-13	PARENTAL STRONGLY CAUTIONED. Some material may be inappropriate for children under 13.
	R	RESTRICTED. Under 17 requires accompanying parent or adult guardian.
	NC-17	NO ONE 17 AND UNDER ADMITTED.
	X	X Rating is an older rating that is the same as NC-17 and may be encoded on the data of older movies.
	NR	NOT RATED

TV PARENTAL GUIDELINES

RATING		Description and Content Themes				
		FV	D	L	S	V
Age-Base	TV-Y	–	–	–	–	–
	TV-Y7	○	–	–	–	–
	TV-G	–	–	–	–	–
	TV-PG	–	○	○	○	○
	TV-14	–	○	○	○	○
	TV-MA	–	–	○	○	○

FV: Fantasy Violence
D: Sexually Suggestive Dialog
L: Adult Language
S: Sexual Situations
V: Violence

TV-Y All Children. This program is designed to be appropriate for all children.

TV-Y7 Directed to Older Children. This program is designed for children age 7 and above.
Note: For those programs where fantasy violence may be more intense or more combative than other programs in this category, such programs will be designated TV-Y7-FV.

TV-G General Audience. Most parents would find this program suitable for all ages.

TV-PG Parental Guidance Suggested. This program contains material that parents may find unsuitable for younger children.
The program contains one or more of the following:
(D) Some suggestive dialogue
(L) Infrequent coarse language
(V) Moderate violence
(S) Some sexual situations

TV-14 Parents Strongly Cautioned. This program contains some material that many parents would find unsuitable for children under 14 years of age.
This program contains one or more of the following:
(D) Intensely suggestive dialogue
(L) Strong coarse language
(S) Intense sexual situations
(V) Intense violence

TV-MA Mature Audience Only. This program is specifically designed to be viewed by adults and therefore may be unsuitable for children under 17.
This program contains one or more of the following:
(L) Crude indecent language
(S) Explicit sexual activity
(V) Graphic violence

<CANADIAN RATING SYSTEM>

CANADIAN ENGLISH LANGUAGE RATING SYSTEM

RATING		
Age-Base	C	Children
	C8+	Children 8 years and older
	G	General programming, suitable for all audiences
	PG	Parental Guidance
	14+	Viewers 14 years and older
	18+	Adult Programming

C Programming interned for children under age 8
Careful attention is paid to themes, which could threaten children's sense of security and well-being. There will be no realistic scenes of violence. Depictions of aggressive behaviour will be infrequent and limited to portrayals that are clearly imaginary, comedic or unrealistic in nature.

C8+ Programming generally considered acceptable for children 8 years and over to watch on their own
Violence will not be portrayed as the preferred, acceptable, or only way to resolve conflict; or encourage children to imitate dangerous acts which they may see on television. Any realistic depictions of violence will be infrequent, discreet, of low intensity and will show the consequences of the acts.

G General Audience
Will contain very little violence, either physical or verbal or emotional. Will be sensitive to themes which could frighten a younger child, will not depict realistic scenes of violence which minimize or gloss over the effects of violent acts.

PG Parental Guidance
Programming intended for a general audience but which may not be suitable for younger children. Parents may consider some content inappropriate for unsupervised viewing by children aged 8-13.

14+ Programming contains themes or content which may not be suitable for viewers under the age of 14
Parents are strongly cautioned to exercise discretion in permitting viewing by pre-teens and early teens.

18+ Adult
May contain violence integral to the development of the plot, character or theme, intended for adult audiences.

CANADIAN FRENCH LANGUAGE RATING SYSTEM

RATING		
Age-Base	G	General
	8+	Children 8 years and older
	13+	Viewers 13 years and older
	16+	Viewers 16 years and older
	18+	For Adults

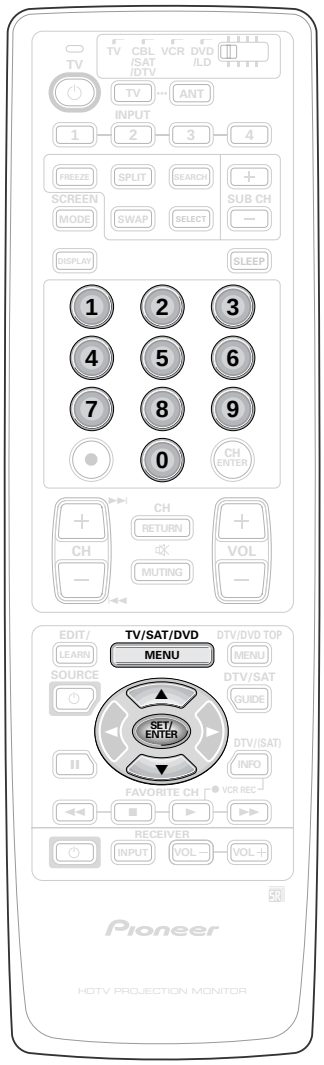
G General
Programming intended for audience of all ages. Contains no violence, or the violence it contains is minimal or is depicted appropriately with humour or caricature or in an unrealistic manner.

8+ (8 ans+) 8+ General – Not recommended for young children
Programming intended for a broad audience but contains light or occasional violence that could disturb young children. Viewing with an adult is therefore recommended for young children (under the age of 8) who cannot differentiate between real and imaginary portrayals.

13+ (13 ans+) Programming may not be suitable for children under the age of 13
Contains either a few violent scenes or one or more sufficiently violent scenes to affect them. Viewing with an adult is therefore strongly recommended for children under 13.

16+ (16 ans+) Programming is not suitable for children under the age of 16
Contains frequent scenes of violence or intense violence.

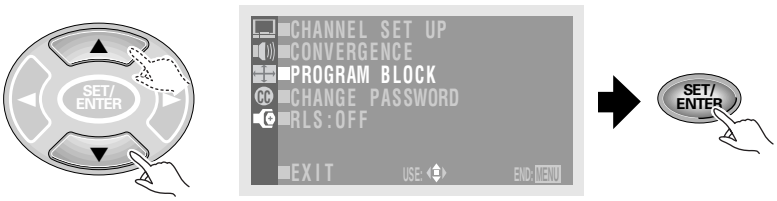
18+ (18 ans+) Programming restricted to adults
Contains constant violence or scenes of extreme violence.



SETTING THE PROGRAM BLOCKING LEVEL

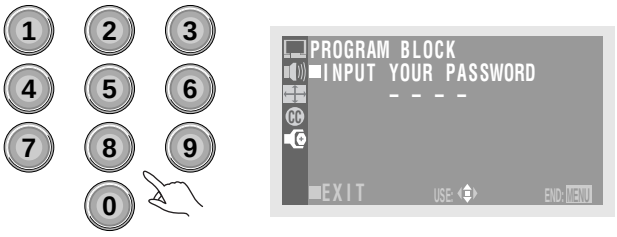
1 **Press MENU and select SET UP by using the ▲ or ▼ button and then pressing SET/ ENTER. (Refer to page 24.)**

2 **Select PROGRAM BLOCK in the same way.**

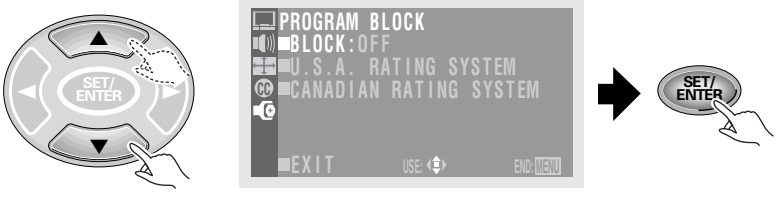


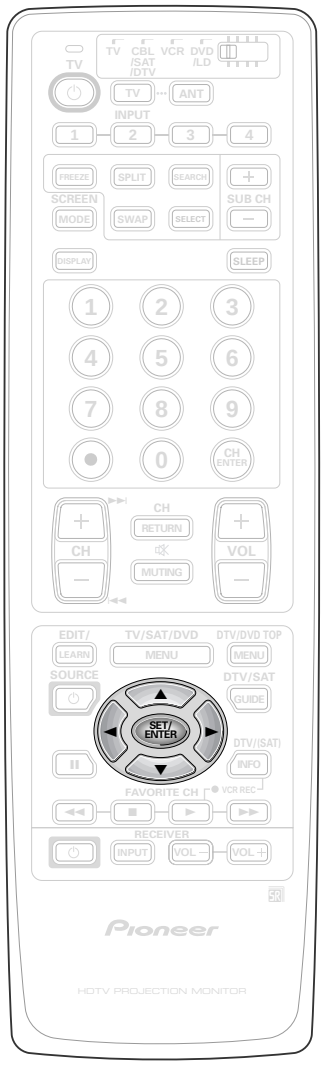
3 **Enter a password.**

- Press numeric buttons '0' through '9' to enter a four-digit password.
- If the password has not been changed as described in Changing Password (p. 37), enter the default password of '1234'.
- If you wish to change the password (recomended), see p. 37 Changing Password for instructions on how to do so.

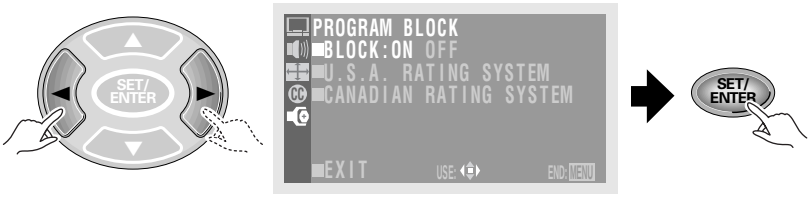


4 **Select BLOCK .**

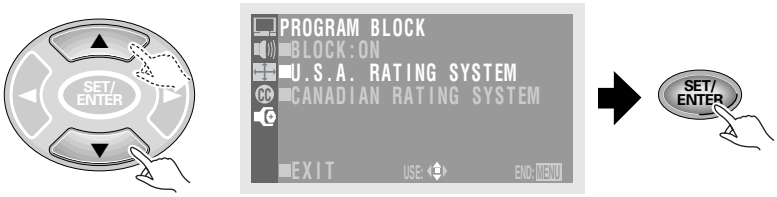




5 Set BLOCK to ON.

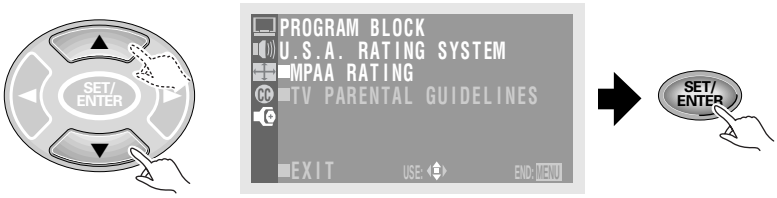


6 Select U.S.A. RATING SYSTEM or CANADIAN RATING SYSTEM.

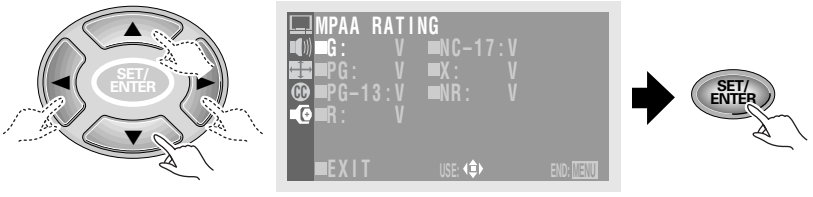


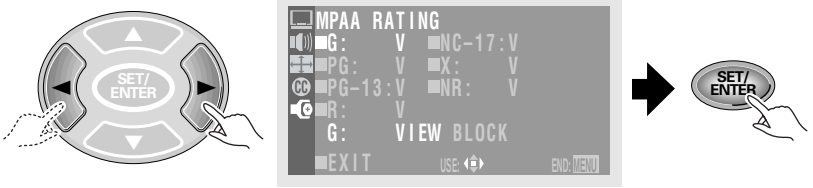
7 If you selected U.S.A. RATING SYSTEM.

Select MPAA RATING or TV PARENTAL GUIDELINES.



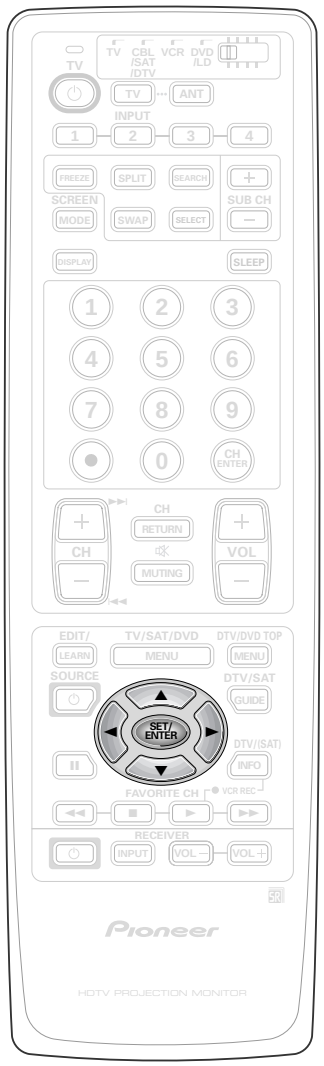
8 Select and then confirm the rank of the MPAA RATING.



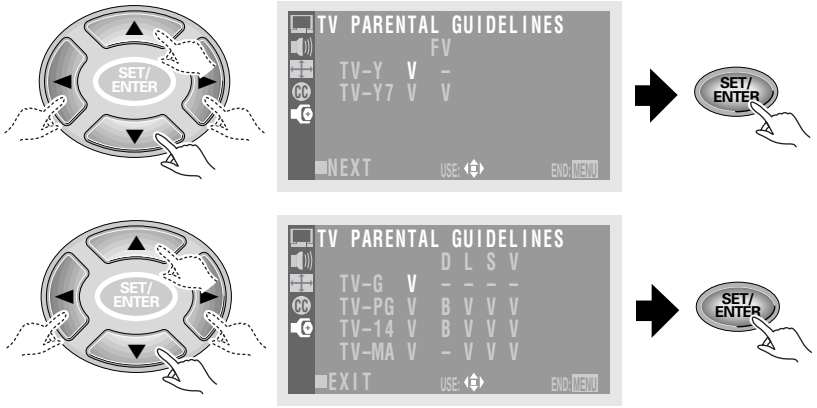


NOTE:

- *Blocking programming with a low rating will cause all programming with a higher rating also to be blocked.*
- *The 'NR' (not rated) MPAA RATING may be set to 'View' or 'Block' without regard to other ratings.*

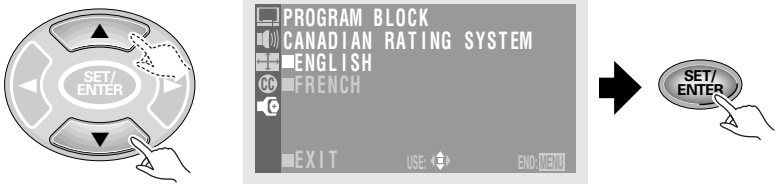


9 Select and confirm the rank of the TV PARENTAL GUIDELINES.

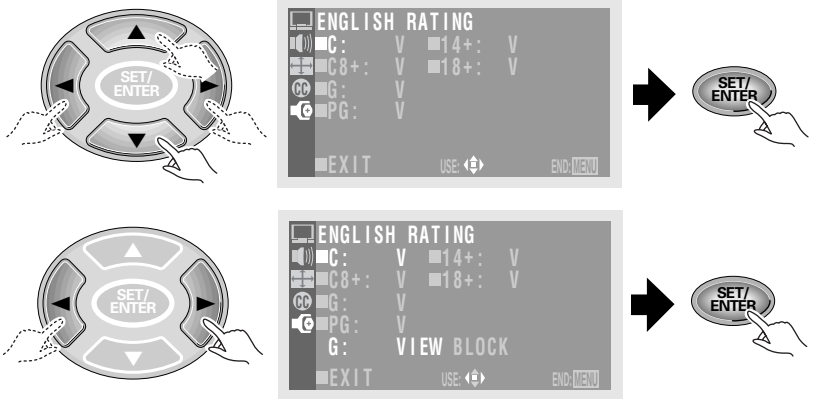


- Each time the SET/ENTER button is pressed, the setting will toggle between 'B' (Block) and 'V' (View).

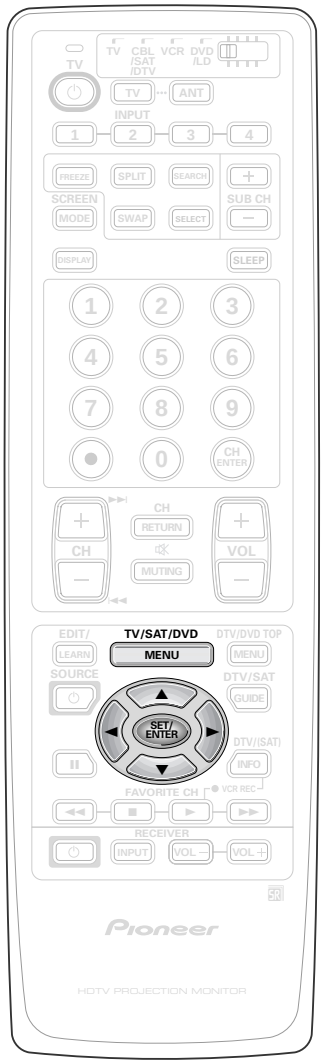
10 If you selected CANADIAN RATING SYSTEM in step 6, select ENGLISH or FRENCH.



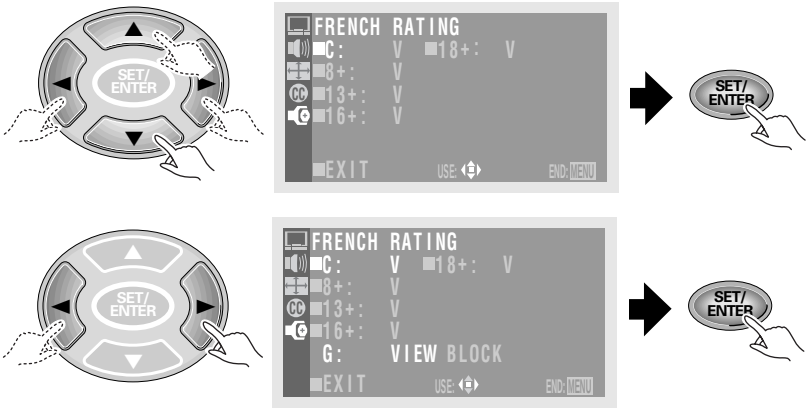
11 If you selected ENGLISH, select and then confirm the rank of the ENGLISH RATING (If you selected FRENCH go to step 12).



Go to step 13.



12 Select and then confirm the rank of the FRENCH RATING.



13 After setting, press MENU to turn the menu off.

HOW TO REMOVE BLOCKING FROM A PROGRAM IN PROGRESS

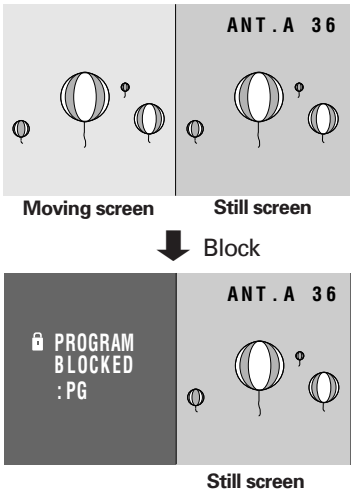
If you choose a program that has a rating higher than your program blocking rating, the picture and sound will cut off. If you press the SET button on the remote control, the password screen will appear.

If you enter your password the blocking will be removed for this viewing only.

NOTE:
If the monitor power is turn OFF then turned ON again, the Program Blocked screen will appear again and you'll need to re-enter the password to view the program.

REMOVING BLOCKING IN MULTI-SCREEN MODE

- Just as in normal single-screen mode, programs are blocked in SEARCH screen mode (see pages 41 and 42), but blocking can be removed only from the Main picture. To remove blocking from Search picture screen, switch to the Main picture for that channel and then remove blocking.
- When viewing in FREEZE screen (p. 41) mode, only programming on the Moving screen to the left will be blocked and the programming on the Still screen to the right will be displayed as is.



- When blocking is on during SEARCH screen mode, the screen at search picture side will be blacked out and won't display: “Key mark”.

CHANGING PASSWORD

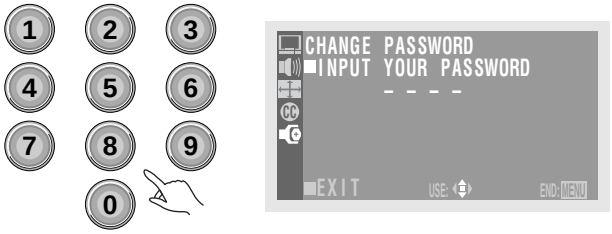
A password must be entered to turn program blocking on and off. The default password is '1234', but it is strongly recommended that you change the password.

1 Press MENU and select SET UP by using the ▲ or ▼ button and then pressing SET/ ENTER. (Refer to page 24.)

2 Select CHANGE PASSWORD in the same way.

3 Enter current password.

- Press numeric buttons '0' through '9' to enter a four digit password.
- If no password has been previously set, enter the default password '1234'.



Cut along dotted line and file after reading and filling out.

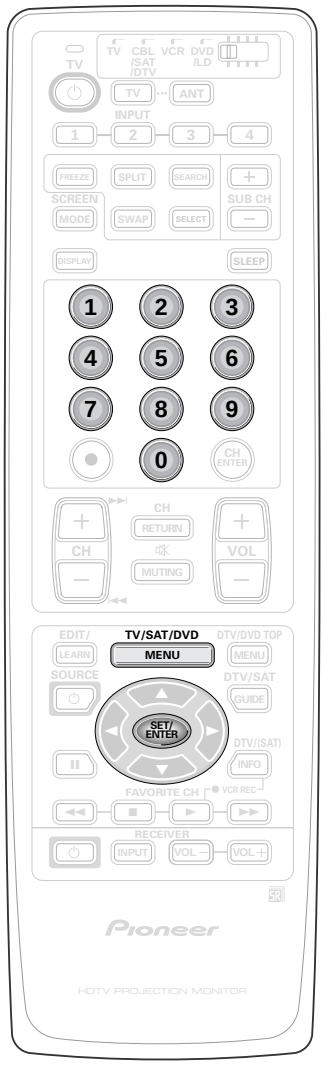
We suggest you write down your password so you don't forget it.

SD-643HD5 SD-533HD5

Your PROGRAM BLOCK password No.:

If you forget the password:

When the message 'INPUT YOUR PASSWORD' in step 3 is displayed, press the RETURN button on the front panel and hold it down for 3 seconds or longer.
The password reverts to "1234".

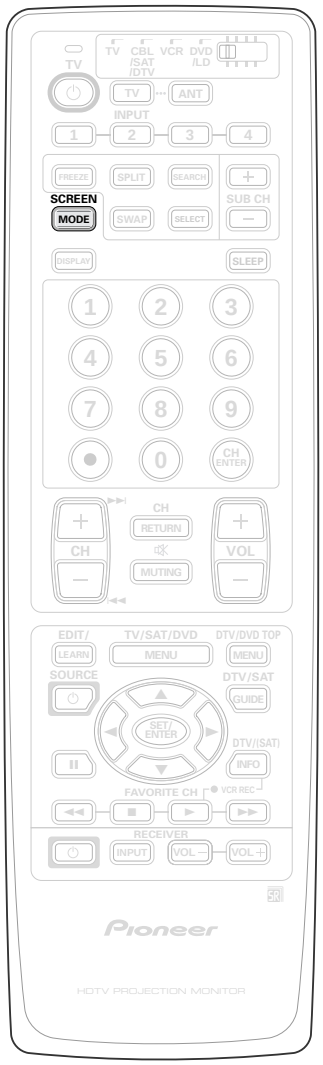


4 Enter new password.

- Press numeric buttons '0' through '9' to enter a four-digit password and press the SET/ENTER button.

5 After setting, press MENU to turn the menu off.

CHANGING SCREEN SIZE



NOTES:

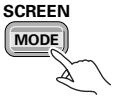
- *When 1080i component signals or RGB signals are input, SCREEN MODE will be limited to FULL.*
- *Continuous operation for extended periods in 4:3 NORMAL mode may burn out the screen. We thus recommend that this mode be used only in conjunction with another SCREEN mode.*

SETTING SCREEN MODE

Different source material have specific screen modes they should use. Some films are mode in Vista some in cinemascope etc. check video/DVD packaging for info. Regular TV program are 4:3, so 4:3 is the standard mode.

- This Monitor is provided with modes to deal with screens of various aspect ratios. It is recommended that programs and software be watched in the appropriate mode.
- When 4:3 images are fully displayed on a wide TV screen in the NATURAL WIDE mode, CINEMA WIDE mode, ZOOM mode, or FULL mode, some parts of the images may be cut off or distorted.

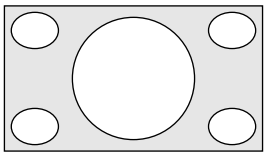
Press the SCREEN MODE button.



- Each time the SCREEN MODE button is pressed, the mode changes in the following order.

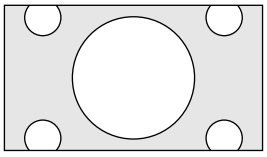
NATURAL WIDE → CINEMA WIDE → ZOOM → FULL → 4:3 NORMAL → NATURAL WIDE

NATURAL WIDE



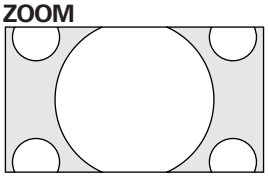
Suitable for when viewing regular TV news or sports programs. Movies or sports programs can be viewed with an expansive powerful image.

CINEMA WIDE



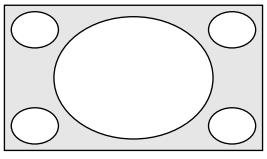
Mainly suitable for viewing Vista size and other such movie images.
Provides a more expansive, powerful image.
This screen size is convenient when viewing a Cinemascope size image that has subtitles.

ZOOM



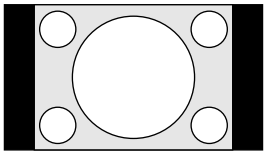
Mainly suitable for viewing Cinemascope size and other such movie images.
Provides a more expansive, powerful image.

FULL

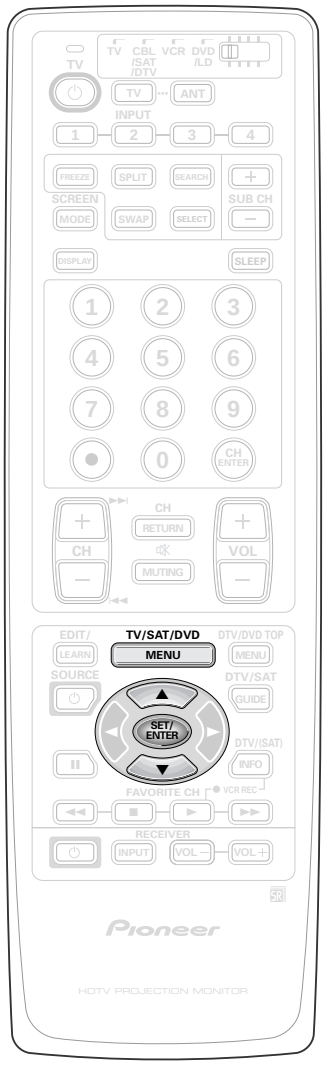


Suitable for wide screen images.

4:3 NORMAL



Suitable for when viewing news sit coms or any regular TV programs. Video software can be viewed in its original screen frame size with this mode.



TO ADJUST THE SCREEN POSITION

When the screen size is CINEMA WIDE or ZOOM, you can adjust the screen position by pushing the ▲ or ▼ button.

1 Press MENU and select SCREEN by using the ▲ or ▼ button and then pressing SET/ENTER. (Refer to page 24.)

2 Select V. POSITION in the same way.

3 Adjust the screen position.

- Adjustable range
  CINEMA WIDE mode : –15 to 15
  ZOOM mode : –25 to 25

4 After adjusting, press MENU to turn the menu off.

NOTE:
Screen position cannot be adjusted in NATURAL WIDE, FULL, or 4:3 NORMAL mode.

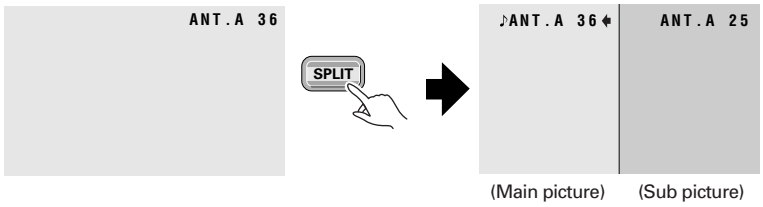
MULTI-SCREEN FUNCTION

VIEWING TWO SCREENS (SPLIT screen)

The screen can be split vertically, making it possible to view different images on the left and right.

- The screen on left side is the main picture, and the other screen is the sub-picture. Sound will be output for the main picture.
  Sound from the TV speaker will only be output for the main picture.
  To listen to sound for a sub picture, press the SWAP button and switch the screens on the left and the right.
- Regular operations can be performed on the main picture.

Press the SPLIT button.



- When the SUB CH +, – buttons are pressed, the channel for the sub-picture will be changed.
- When the SELECT button is pressed, the ➡ will move to the other screen.
- The MONITOR OUTPUT terminal outputs the main picture signal.
- Pressing the SPLIT button again will restore the original screen.

MAKING NOTES ON PROGRAM CONTENT (FREEZE screen)

The screen can be frozen, such as for taking down a recipe from a cooking program or an address for entering a quiz, or the like.

Press the FREEZE button.

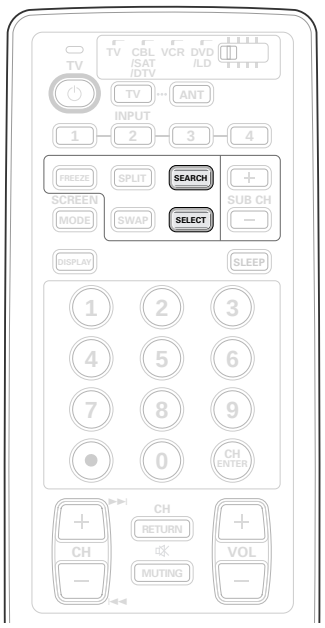
- This function is operable only with the normal screen.
- Pressing the FREEZE button again will restore the original screen.

NOTES:

- *The same image cannot be viewed as both the main picture and the sub-picture.*
- *Pressing the MENU button in SPLIT or FREEZE screen mode restores the screen display to normal and displays the menu on screen.*
- *These functions cannot be used when INPUT 1 or INPUT 2 is receiving a 1080i or 480p component signal (or the signals might not be received or noise might be generated).*
- *When a TV broadcast is being received, the screen on the right will not show the antenna B signal. If antenna B is displayed on the left screen during SPLIT screen, the SWAP operation cannot be done.*
- *RGB signals input from INPUT3 cannot be displayed.*
- *Continuous operation for extended periods in SPLIT or FREEZE screen mode may burn out the screen. We thus recommend that these modes only be used in conjunction with the normal screen mode.*
- *If the non-interlace signal for a TV game etc. is entered to the left screen during SPLIT screen mode, the right screen may be disrupted. If this occurs, use the right screen for TV game etc. entry.*

SEARCHING FOR A PROGRAM ON A DIFFERENT CHANNEL (SEARCH screen)

The screen on the right side can be made into nine or three different screens, making it possible to search for programs or enjoy multiple images.

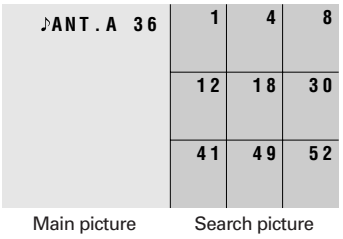


Press the SEARCH button.

- Each time the SEARCH button is pressed, the screen mode changes in the following order.

Normal screen → 9-SEARCH screen → 3-SEARCH screen → Normal screen

① **9-SEARCH screen**



- On the search picture, the antenna A preset channel (see page 26) will be displayed as a frozen image. If 9 or more channels have been preset, the screens will automatically be switched and displayed.
- The search picture cannot be operated.
- If the channel or input source is changed, SEARCH screen mode will turn off.

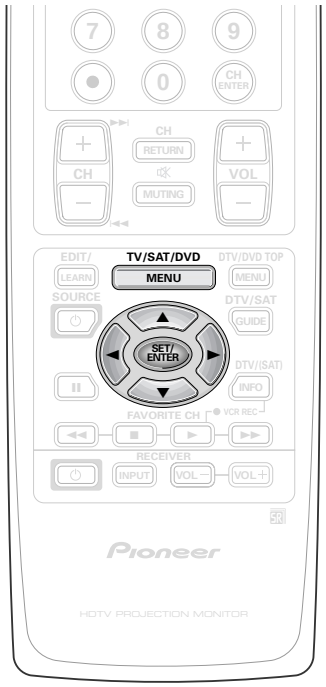
② **3-SEARCH screen**

- Press the SELECT button to select the image that you wish to switch the channel or input source to. You can operate the screen that is selected by the yellow arrow. (Use only the selector buttons, direct channel selection buttons if channel, antenna or CH +,– buttons.)
- Sound output is limited to the main picture.

- *Pressing the MENU button in SEARCH screen mode restores the screen display to normal and displays the menu on screen.*
- *These functions cannot be used when INPUT 1 or INPUT 2 is receiving a 1080i or 480p component signal (or the signals might not be received or noise might be generated).*
- *RGB signals input from INPUT3 cannot be displayed.*
- *Continuous operation for extended periods in SEARCH screen mode may burn out the screen. We thus recommend that these modes only be used in conjunction with the normal screen mode.*
- *The only channels displayed on the SEARCH screen will be those with input signals input from antenna A. Antenna B channels cannot be displayed on this screen.*
- *If non-interlace signal for TV video games etc. are entered to the left screen during 9-SEARCH screen or 3-SEARCH screen modes, the screen may be disrupted.*

CLOSED CAPTION DECODE FUNCTION

Closed caption broadcasting (character information) in the video signal allows the displaying of characters on the screen. This unit has a closed caption decoder which allows, these titles to be displayed when receiving these broadcasts or playing a video cassette or Video Disc with the CC mark, etc.

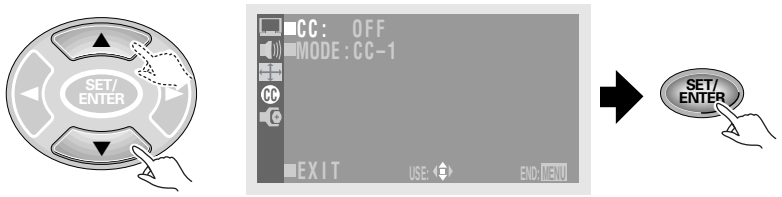


NOTES:

- *When a video cassette or Video Disc carrying the CC mark etc. is played, the closed caption signal may not be output depending on your VCR or Video disc player.*
- *During TV broadcast reception, closed caption signal may not be decoded properly if the receiving broadcast signal is weak.*
- *Closed caption signal may not be decoded properly depending on the recording condition of the video cassette tape.*
- *The character information will not be displayed while a menu is displayed. To turn on the character information, press the MENU button and turn off MENUS.*
- *This function cannot be used when 1080i or 480p component signals and RGB signals are input.*

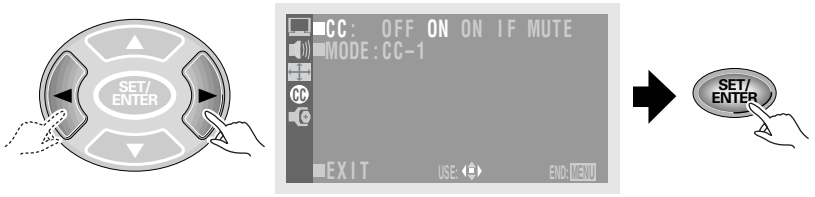
1 Press MENU and select CC by using the ▲ or ▼ button and then pressing SET/ ENTER. (Refer to page 24.)

2 Select CC in the same way.



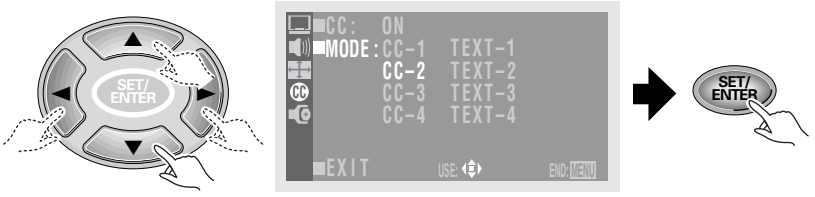
3 Set CC to ON or ON IF MUTE.

- If you have selected ON IF MUTE, closed captions will be displayed only while MUTE is functioning with the MUTING button pressed while you are viewing or listening to the program.



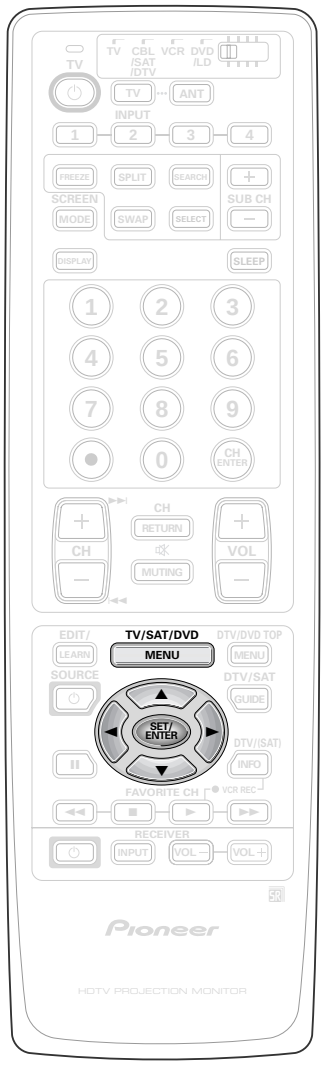
4 Select MODE.

5 Select the desired CC (Closed Caption CC-1 to CC-4) or TEXT (TEXT-1 to TEXT-4).



6 After setting, press MENU to turn the menu off.

CHANGING CHANNEL SET UP



TO ADD OR DELETE PRESET CHANNELS

Broadcast stations preset by auto channel preset which are unnecessary can be deleted. Broadcast stations you want to watch that were not preset by auto channel preset can be preset. You can add a name to a channel that has been added. (See steps 7 and 8 on page 46.)

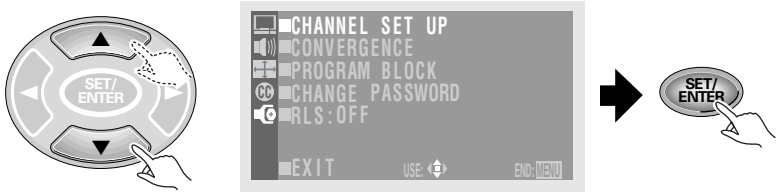
ADD ..... Manually presets channels that were not preset by AUTO CHANNEL PRESET.

DEL ..... Deletes channels that are not required for reception. The deleted channels can be skipped when selecting channels with the + and – CH (channel) buttons.

- Perform the following after completing AUTO CHANNEL PRESET. (See page 26.)

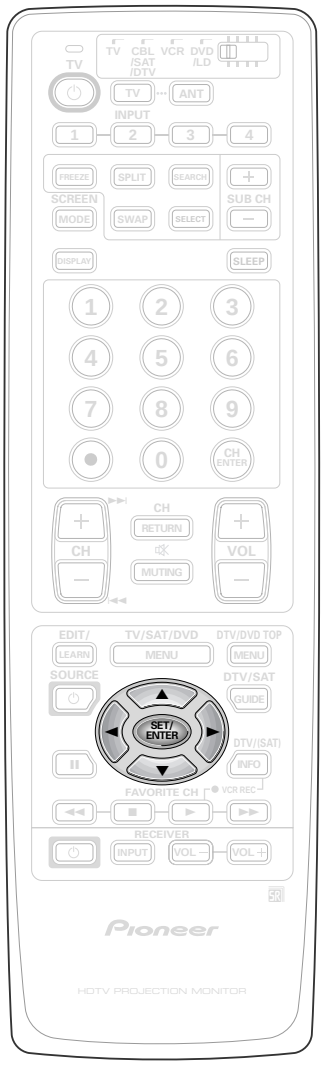
1 **Press MENU and select SET UP by using the ▲ or ▼ button and then pressing SET/ ENTER. (Refer to page 24.)**

2 **Select CHANNEL SET UP in the same way.**



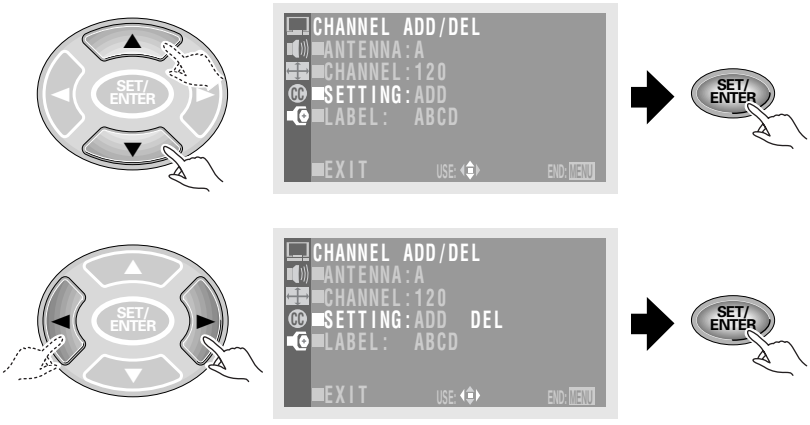
3 **Select CHANNEL ADD/DEL .**

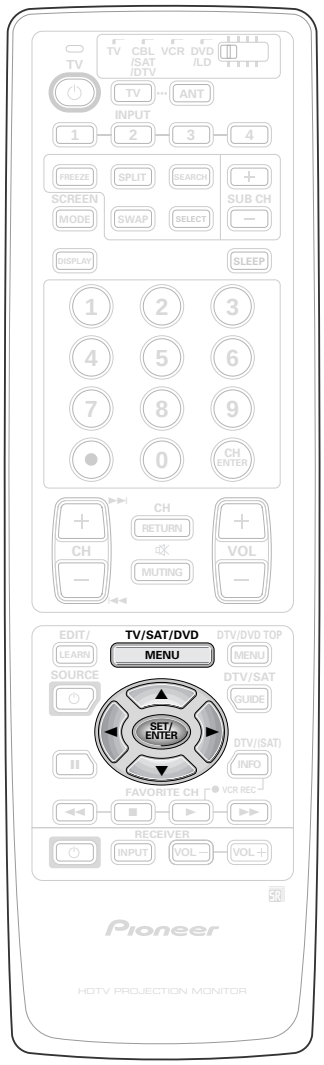
4 **Select ANTENNA receiving the channel you want to delete or add with A or B.**



5 Select CHANNEL, then select a channel.

6 Select SETTING, then select ADD (addition) or DEL (deletion).





7 Select LABEL and input the letters for the name you want to call this channel.

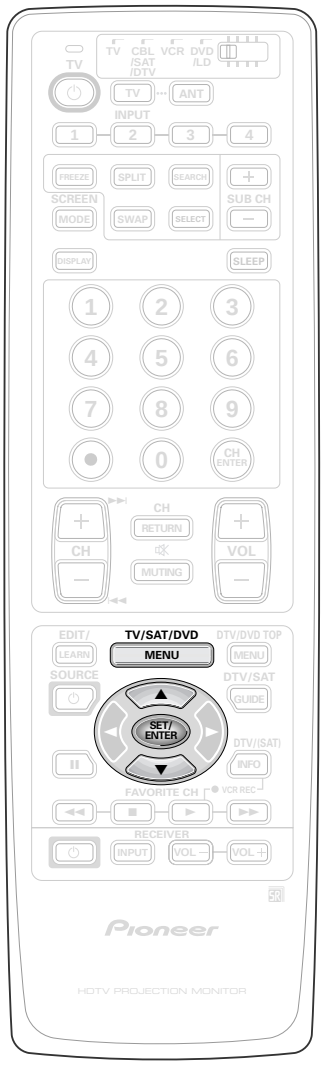
- When adding a channel, a label of 4 characters can be input for the added channel.

- Input the first character.
  When ☐ is selected, a space can be input.
  When ↩ is selected and input, label character input mode will terminate.

- Input the rest of the characters.

8 Repeat steps 4 to 7 to add and/or delete other channels.

9 After setting, press MENU to turn the menu off.

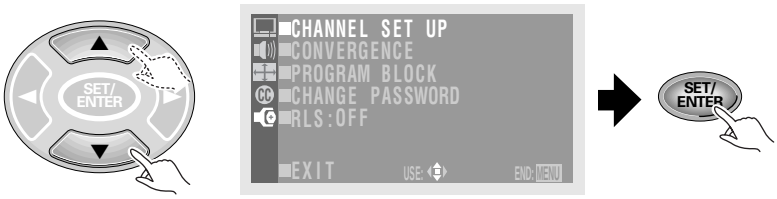


FAVORITE CHANNEL SET UP

Assigning your favorite channels to the four buttons (blue, green, red and yellow) on the remote control unit makes it easy to call them up. Four channels can be assigned to each button, making it possible to set a total of 16 channels.

1 **Press MENU and select SET UP by using the ▲ or ▼ button and then pressing SET/ENTER. (Refer to page 24.)**

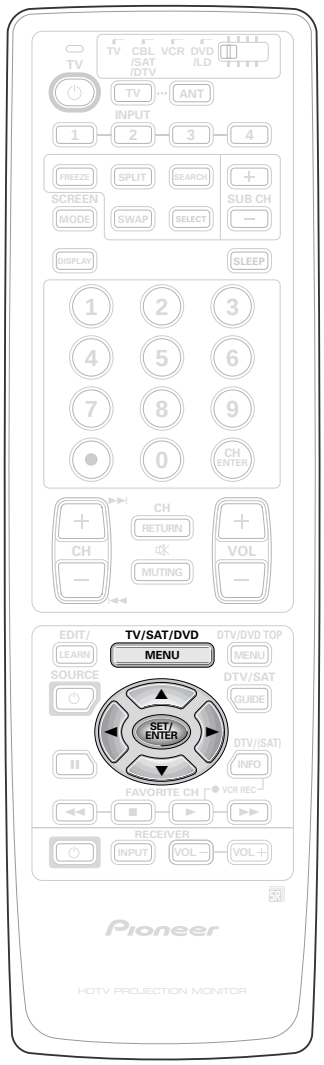
2 **Select CHANNEL SET UP in the same way.**



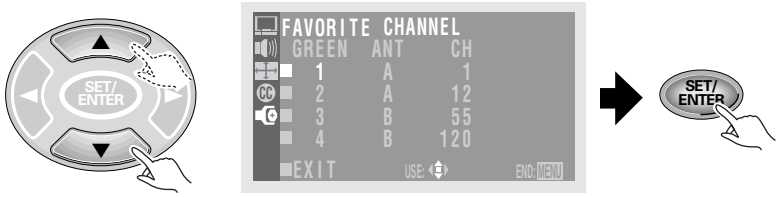
3 **Select FAVORITE CHANNEL .**

4 **Select the color of the button you wish to set.**

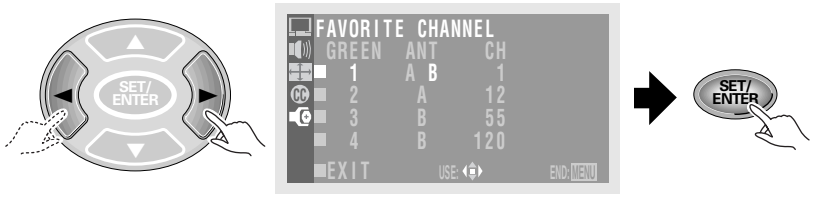
NOTE:
A channel deleted with CHANNEL ADD/DEL (page 44) cannot be set as a FAVORITE CHANNEL.



5 Select number.

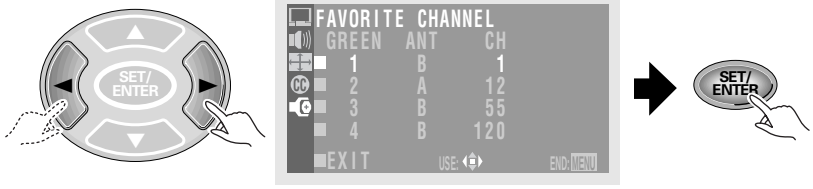


6 Select antenna.



- If you made a mistake during setting, press SET to select the incorrect entry and set it correctly.

7 Select the channel.



8 To set another number, repeat steps 5 to 7.

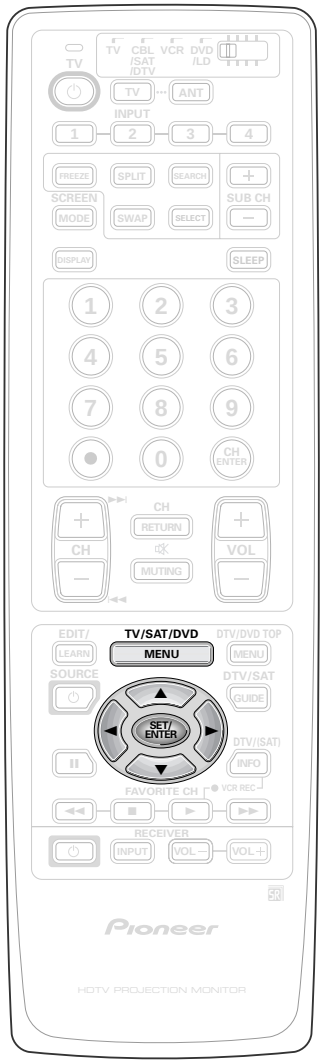
To set a button of a different color, repeat steps 4 to 7.

- To return to step 4, press either the ▲ or the ▼ button to select EXIT and then press the SET/ENTER button.

9 After setting, press MENU to turn the menu off.

PICTURE ADJUSTMENTS

This device has three types of picture quality settings in memory. You can choose one from them or set the picture quality you desire and store it in memory.



NOTES on GAME mode setting:

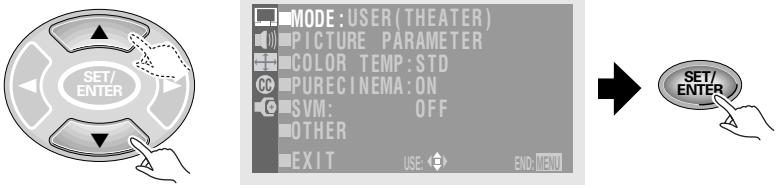
- *We do not recommend the use of the Monitor for video games, still pictures, or computers due to the potential damage to the CRTs*. In the event a consumer needs to use these devices for a short period of time, the GAME mode will minimize potential damage to the CRTs* by lowering the relative contrast.*
- *All signals output from the Projection Monitor will be unaffected. Only the original output signal is sent through the output jacks.*

**CRT: Cathode-ray tube*

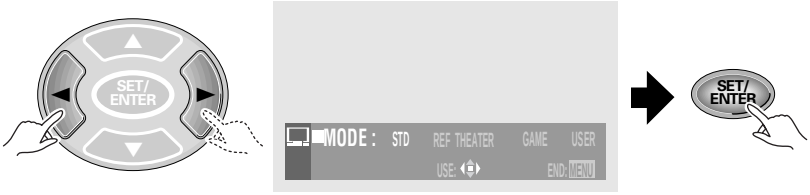
RECALL THE DESIRED SETTINGS

1 Press MENU and select PICTURE by using the ▲ or ▼ button and then pressing SET/ENTER. (Refer to page 24.)

2 Select MODE in the same way.

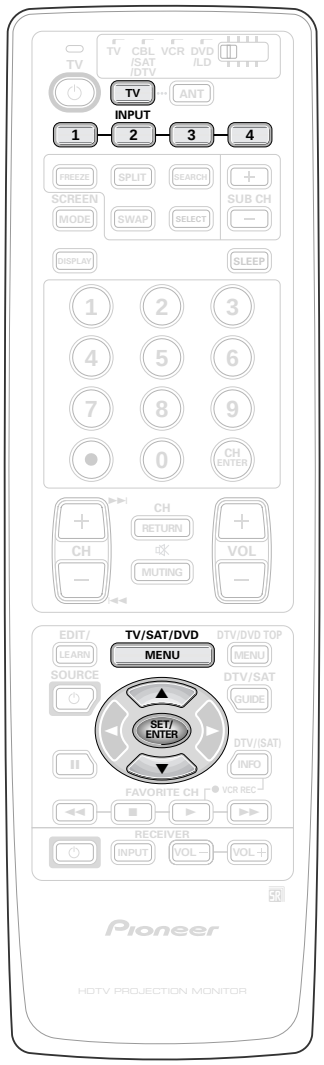


3 Select the desired setting.



STD ..... Sets standard picture quality.
REF THEATER .... Reduces contrast making dark images easier to see. Effective for movies that have many dark images such as night scenes etc..
GAME ..... Lowers the relative contrast of TV game and personal computer images to minimize discomfort to the eyes. This will minimize bad effects such as discolored spots or stains on the CRT of the Monitor.
USER ..... Calls up the picture quality the user has set. See page 50 for on explanation of different picture qualities.

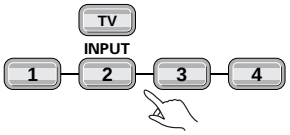
4 After setting, press MENU to turn the menu off.



STORING THE SET PICTURE QUALITY IN MEMORY

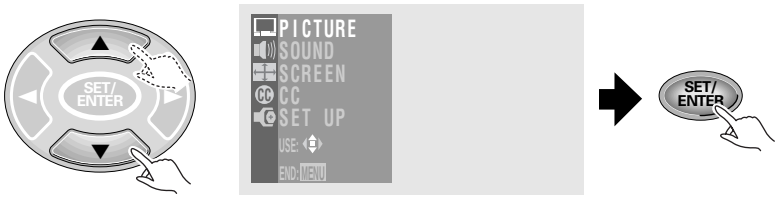
USER mode can be set for each input source: TV and INPUT 1 to INPUT 4.

1 Select the input source and show the image on the screen.



If VCR or DVD/LD has been selected, start playback for the relevant device.

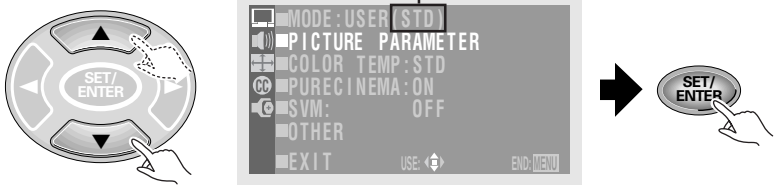
2 Press MENU and select PICTURE .



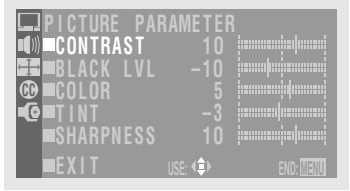
3 Select PICTURE PARAMETER .

- If any mode (STD, REF THEATER, or GAME) is adjusted, setting for USER mode.
- The last mode that was adjusted will become the USER sub mode (indicated in parentheses).
- A USER mode can be stored for TV and the four input sources.

Indicates the adjusted picture quality setting that is the base for USER mode.



4 Adjust the desired picture quality. (Refer to steps 5 and 6 on page 52.)



5 After adjusting, press MENU to turn the menu off.

TO ADJUST THE PICTURE QUALITY

Adjust the picture quality when you want improve the quality of the picture you are watching. You can adjust the CONTRAST, BLACK LVL (brightness), COLOR, TINT, SHARPNESS or COLOR TEMP, PURECINEMA, and Scan Velocity Modulation (SVM).

CONTRAST ..... Adjusting the contrast to match the brightness of the surroundings so it is easier to watch.

BLACK LVL (brightness)
..... Adjusting the picture so that night scenes, dark hair, and other dark parts of the screen are easier to watch.

COLOR ..... Adjusting it to the density you prefer. (It appears natural if it is a little light.)

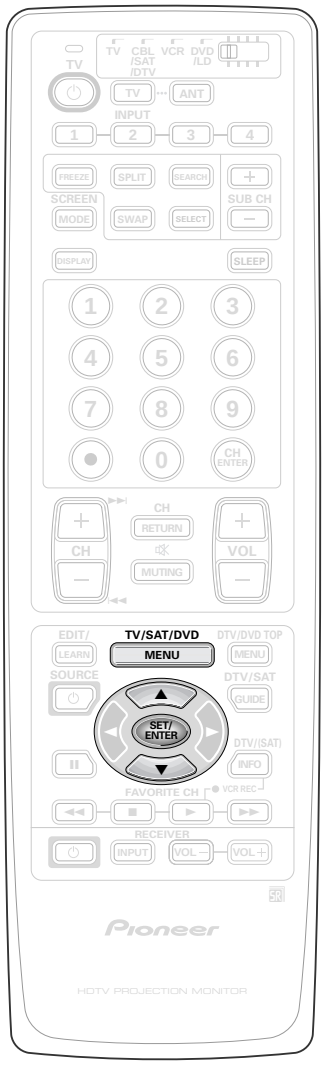
TINT ..... Adjusting it so that flesh tones appear more attractive.

SHARPNESS ..... Normally use the center value.
When you want a soft sensation, set it so that the scale moves in the minus direction.

COLOR TEMP .... This function enables the image to be set to three different tones.

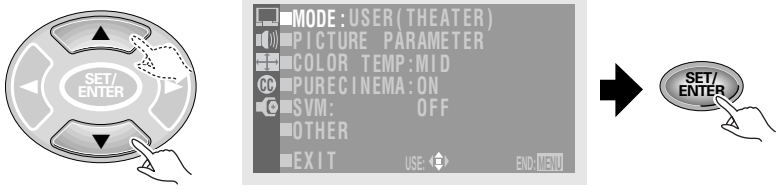
PURECINEMA ... This function automatically detects movie film recorded at 24 frames per second, and converts it into a high quality 30 frames per second delivering the picture at the same rate as it was recorded.

Scan Velocity Modulation (SVM)
..... Screen contour definition can be selected as desired.



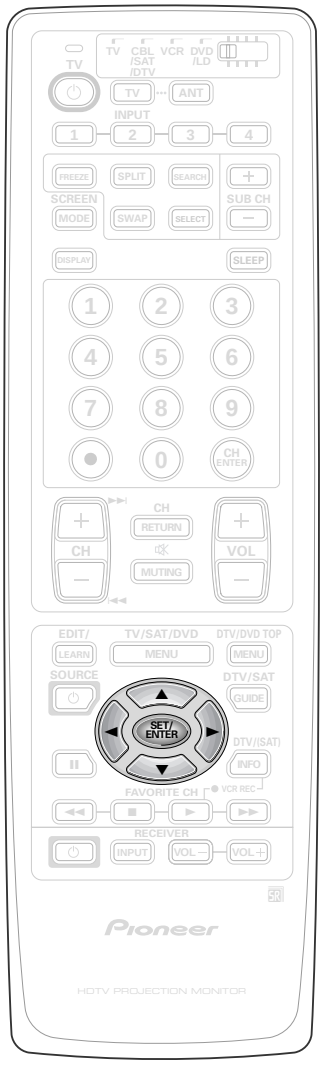
1 Press MENU and select PICTURE . (Refer to page 24.)

2 Select the MODE .

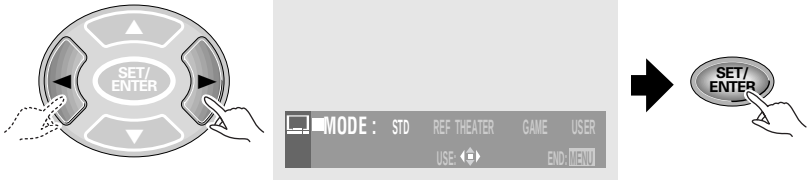


NOTES:

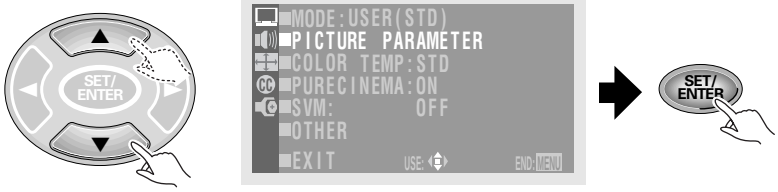
- *The COLOR, TINT, and SHARPNESS settings may not be changed when receiving RGB input.*
- *When RLS is LVL1 or LVL2, CONTRAST, BLACK LVL and COLOR cannot be adjusted. (See page 62.)*
- *When picture quality has been adjusted, the user mode data will be overwritten with the new settings.*



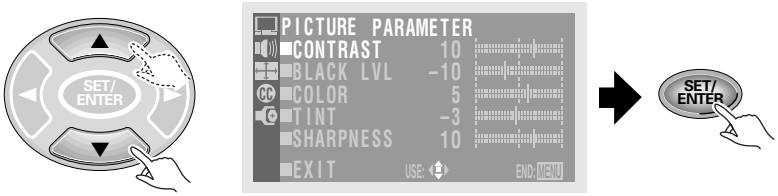
3 Select the desired mode.



4 Select the PICTURE PARAMETER.

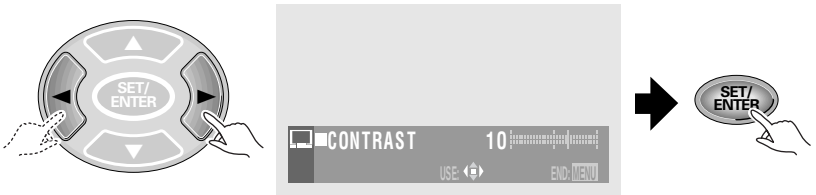


5 Select the adjustment item.

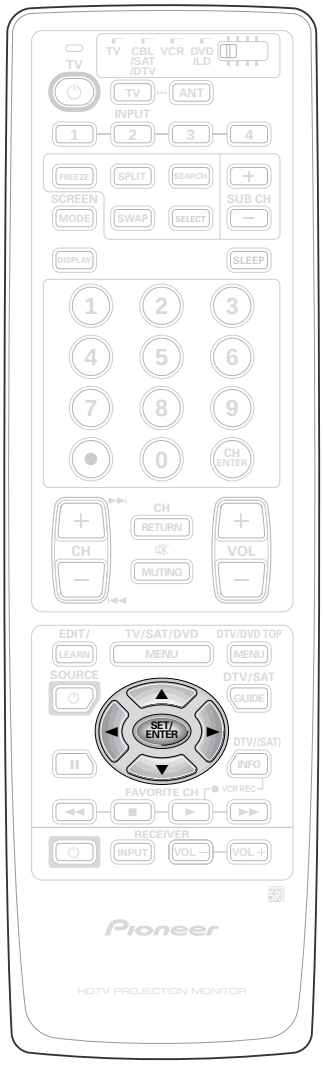


6 Adjust by pressing ◄ or ►.

- You can adjust in a range from –30 to 30.
- Press ◄ to decrease and ► to increase.



- The set picture quality will stored in memory as USER mode (see page 49 and 50).
- Repeat steps 5 and 6 for other items.

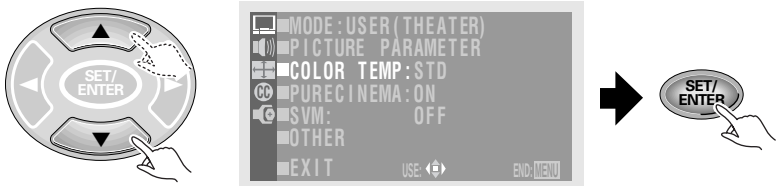


NOTE on PURECINEMA adjustment:
Normally, this function should be set to ON, however, occasionally this setting may cause slight syncopation problems with the audio track. If you are bothered by this, select "OFF". If "OFF" is selected, normal progressive signal processing is performed.

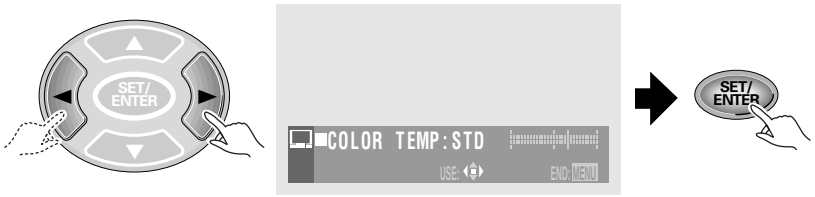
7 ① To adjust COLOR TEMP

This function enables the image to be set to three different tones.

Select COLOR TEMP.



Select the desired tone of the image.



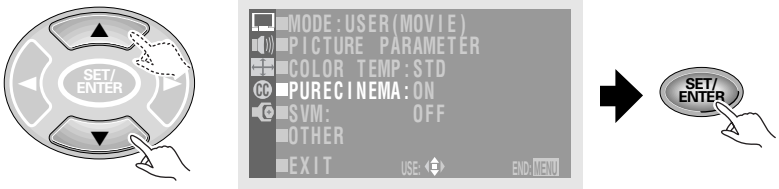
FILM ..... Warmer color
STD ..... Normal color
LIVE ..... Coolest color

② To adjust PURECINEMA

This function automatically detects movie film recorded at 24 frames per second, and converts it into a high quality 30 frames per second delivering the picture at the same rate as it was recorded.

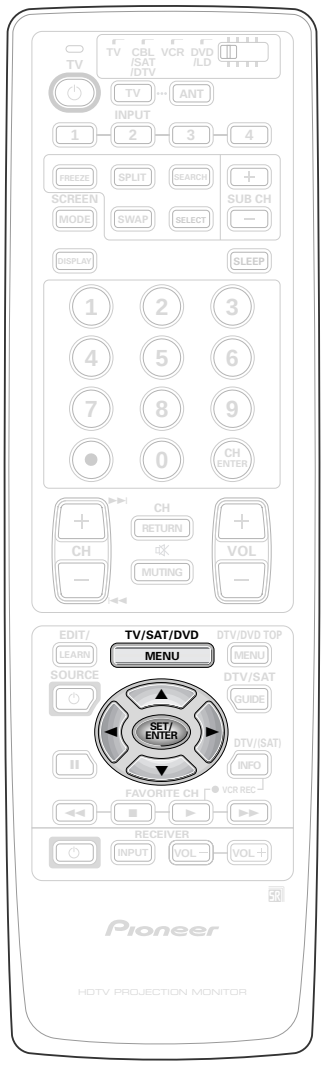
NOTE:
This function cannot be used when 1080i or 480p component signals or RGB signal input.

Select PURECINEMA.



Select the desired PURECINEMA mode.

ON ..... PURECINEMA effects.
OFF ..... No PURECINEMA effects



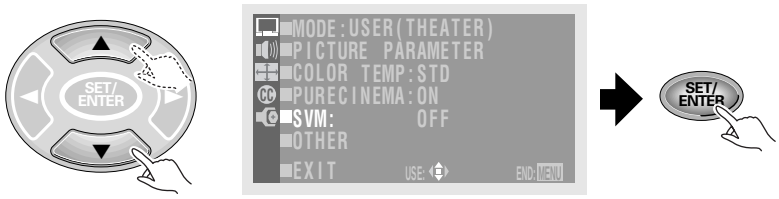
③ To adjust Scan Velocity Modulation (SVM)

Screen contour definition can be selected as desired.

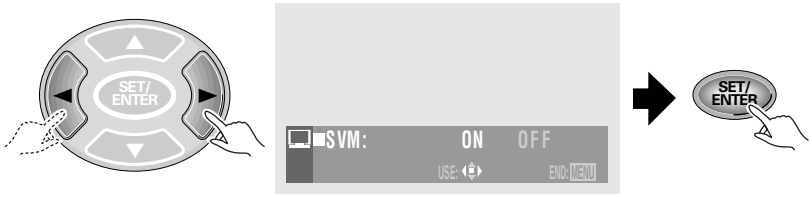
NOTE:

This function cannot be used when PICTURE MODE is GAME.

Select SVM .

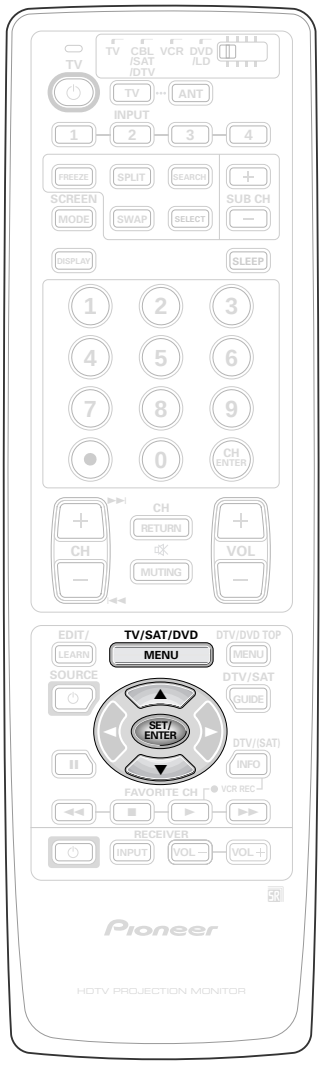


Select the desired SVM mode.



ON ..... Provides a picture with sharp contours.
OFF ..... Provides a soft picture.

8 After adjusting, press MENU to turn the menu off.



NOTE:
Items under "OTHER QUALITY ADJUSTMENTS" cannot be selected when input is RGB.

OTHER PICTURE QUALITY ADJUSTMENTS

The following four fine adjustments are available.

① 3D Y/C LVL ..... Perform this adjustment when noises appear at the color borders of the image.

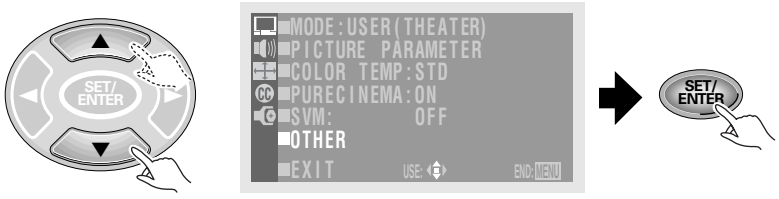
② 3D NR LVL ..... Reduces the noise level of the luminance and chrominance signals when there is S-VIDEO input.

③ FLESH TONE ..... By the time video signals from a broadcast station arrive at your projection monitor (on air or cable TV), they have experienced significant degradation.
Flesh tone reduces color noise, improves color uniformity and corrects unnatural flesh tones to give your natural images.

④ BLACK ENHANCE ... Changing the black part of the video signal automatically corrects the gradation of the black.

1 Press MENU and select PICTURE . (Refer to page 24.)

2 Select OTHER .

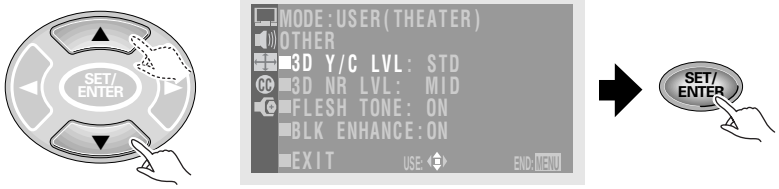


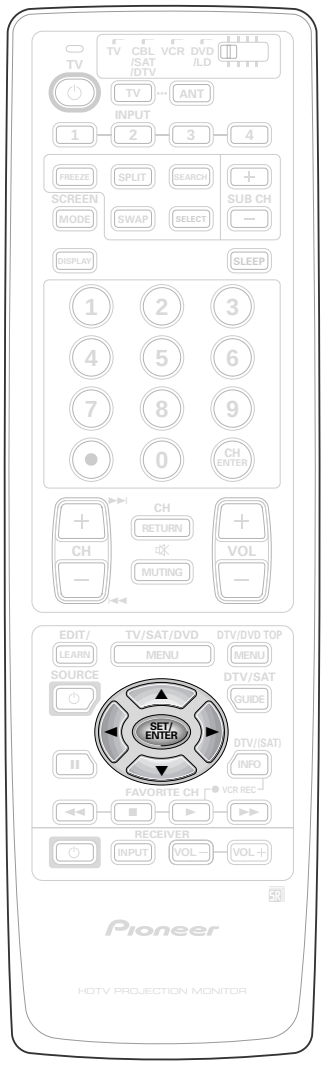
3 ① To adjust 3D Y/C LVL

Perform this adjustment when noises appear at the color borders of the image.

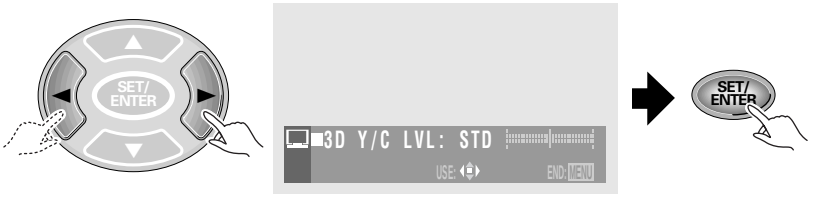
NOTE:
This function can be used only when viewing a source that has been connected to the antenna or composite video input terminal.

Select 3D Y/C LVL .





Select the desired level.



OFF ⟷ STD ⟷ MAX

Suitable for software using dynamic images

Suitable for software using still images

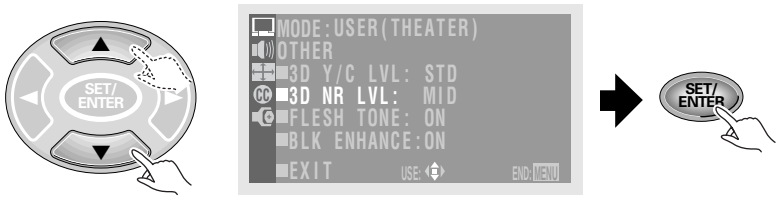
② To adjust 3D NR LVL

Reduces the noise level of the luminance and chrominance signals when there is S-VIDEO input.
Luminance signal ..... Video signal that controls brightness.
Chrominace signal ..... Video signal that controls color.

NOTE:

This function can be used only when viewing a source that has been connected to the S-VIDEO input terminal.

Select 3D NR LVL .

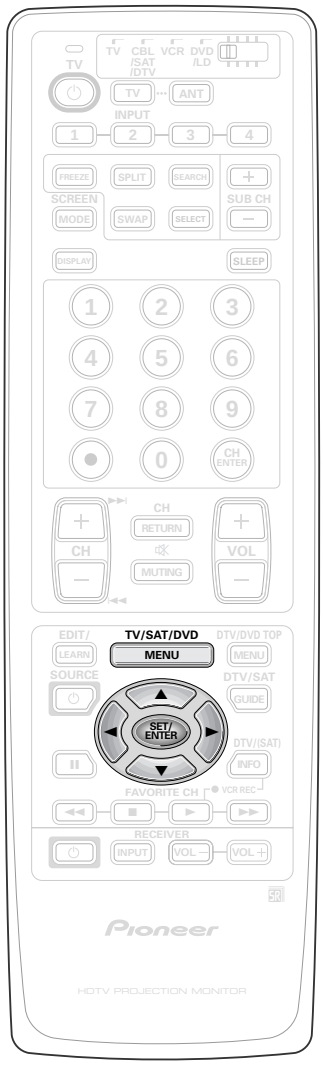


Select the desired level.

MIN ⟷ MID ⟷ MAX

Low noise reduction

High noise reduction



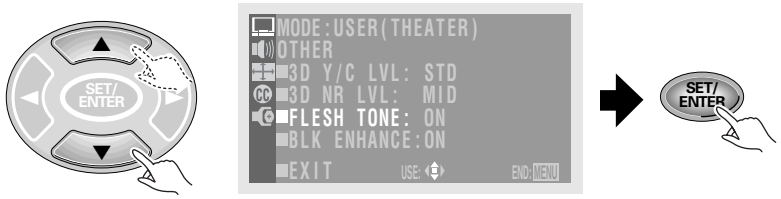
③ To adjust FLESH TONE

By the time video signals from a broadcast station arrive at your projection monitor (on air or cable TV), they have experienced significant degradation.
Flesh tone reduces color noise, improves color uniformity and corrects unnatural flesh tones to give your natural images.

NOTE:

This function cannot be used when RGB signals have been input.

Select FLESH TONE .



Set FLESH TONE to ON.

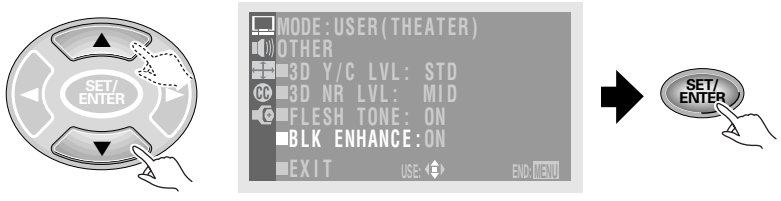
④ To adjust BLK ENHANCE

Changing the black part of the video signal automatically corrects the gradation of the black.

NOTE:

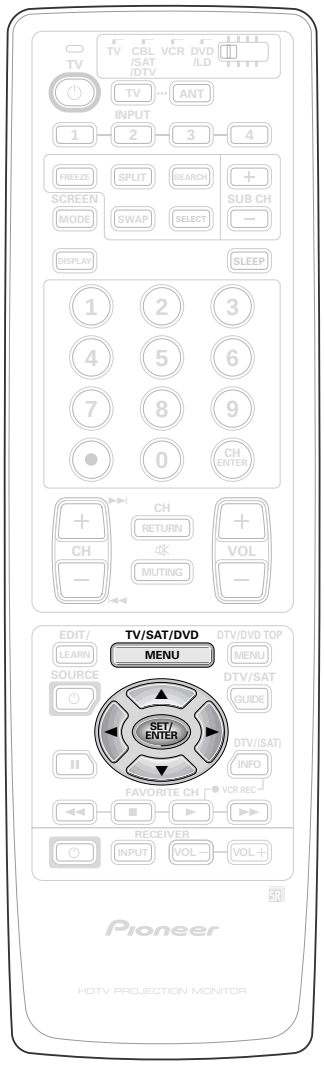
The effectiveness varies according to the content of the video signal.

Select BLK ENHANCE .



4 After setting, press MENU to turn the menu off.

SOUND ADJUSTMENTS



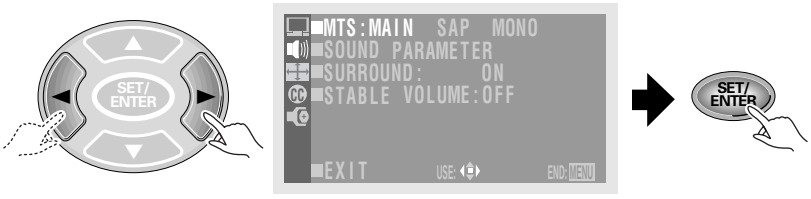
WATCHING STEREO AND BILINGUAL PROGRAMS

The multichannel TV sound (MTS) decoder enables stereo program and Second Audio Program (SAP) to be received. (one channel is used for main language and one channel for second language). This MTS decoder can only be used if a broadcast of stereo program or SAP is received.

1 Press MENU and select SOUND by using the ▲ or ▼ button and then pressing SET/ENTER. (Refer to page 24.)

2 Select MTS in the same way.

3 Select the desired audio mode.

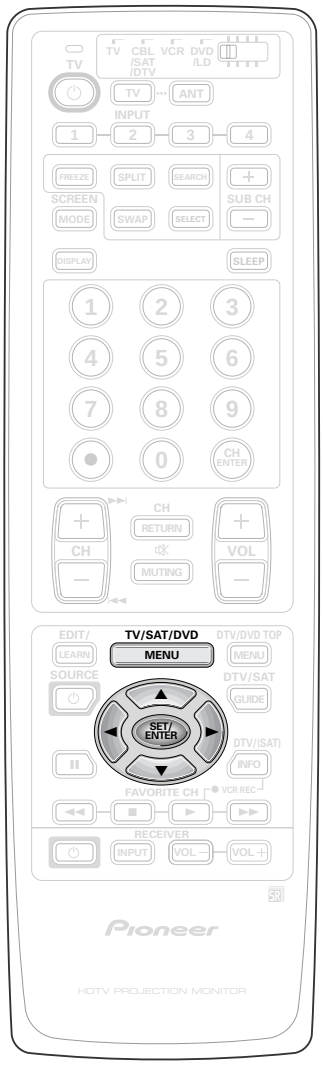


→MAIN←→SAP←→MONO←

4 After setting, press MENU to turn the menu off.

NOTES:

- *This function can only be used for TV input.*
- *Broadcast stereo and SAP reception operate in accordance with the Broadcast Television System Committee (BTSC) standard only. Stereo audio transmission from CATV system can vary from area and may not be compatible with the BTSC standards. Check with your local cable company for specific compatibility requirements.*



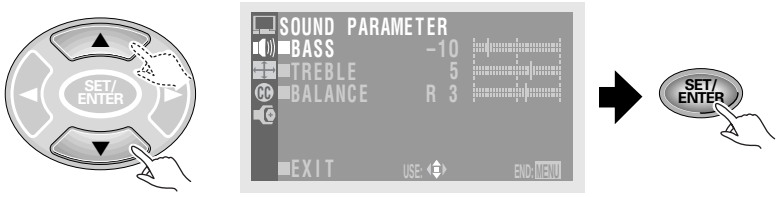
TO ADJUST THE SOUND QUALITY

BASS, TREBLE and BALANCE can be adjusted.

1 Press MENU and select SOUND . (Refer to page 24.)

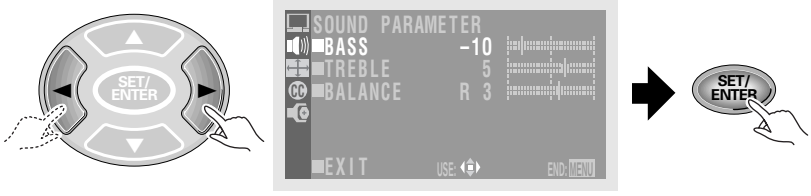
2 Select the SOUND PARAMETER .

3 Select the adjustment item.



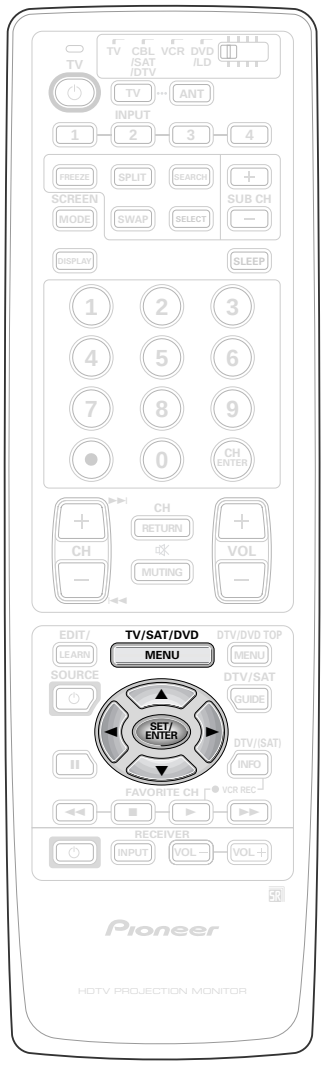
4 Adjust by pressing ◄ or ► .

- Adjustable range
  BASS, TREBLE : –15 to 15
  BALANCE : L (Left) 15 to R (Right) 15



- Repeat steps 3 and 4 for other items.

5 After adjusting, press MENU to turn the menu off.



TO SELECT THE DESIRED SURROUND MODE

This function creates the sound with a sense of presence.
In a concert hall or in a theater, you hear a mixture of sound coming directly to you (direct sound) and sound that reaches you with a slight delay after being reflected from the walls (indirect sound). Surround mode applies this principal to create a sense of presence by mixing slightly delayed sound signals with direct sound signals.

1 Press MENU and select SOUND . (Refer to page 24.)

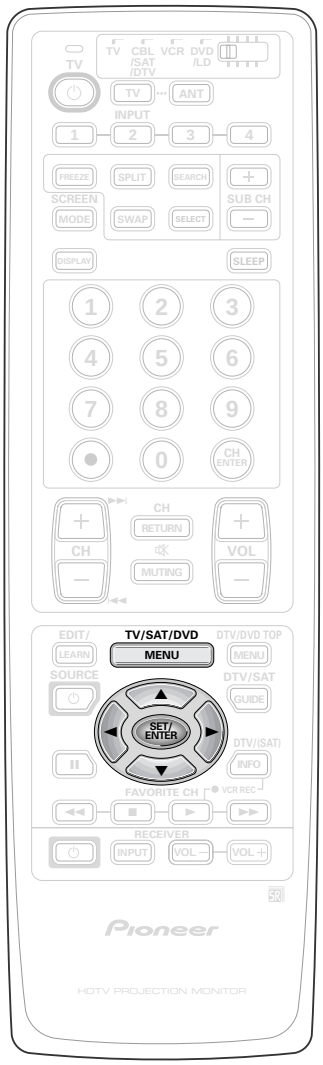
2 Select SURROUND .

3 Select the desired SURROUND mode.

ON ..... This is an easy way to enjoy SURROUND.
OFF ..... Turns off the surround effect.

4 After setting, press MENU to turn the menu off.

NOTES:
- *The surround effect cannot be obtained with mono sound.*
- *In some cases, the surround effect may be minimal.*



TO ADJUST STABLE VOLUME

A loud sound may suddenly be emitted when you change the TV channel or when the broadcast switches to a commercial or the like. If so, setting STABLE VOLUME to ON will enable you to automatically change the volume level to what is comfortable.

1 Press MENU and select SOUND . (Refer to page 24.)

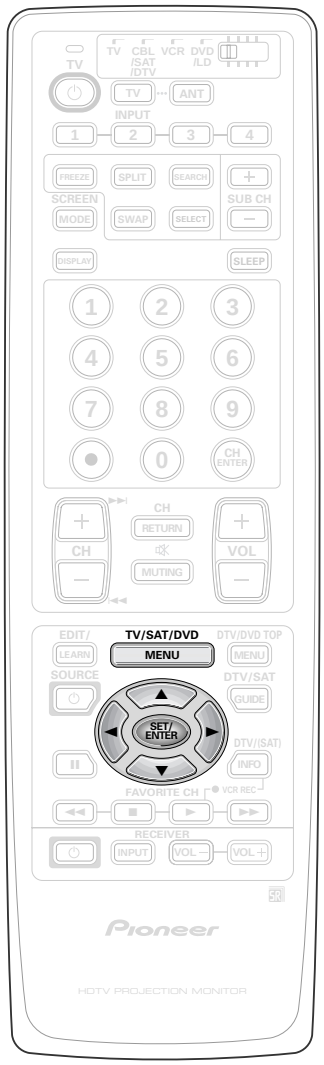
2 Select STABLE VOLUME .

3 Set STABLE VOLUME to ON.

4 After adjusting, press MENU to turn the menu off.

NOTE:
Because volume level is automatically adjusted when STABLE VOLUME is set to ON, the sound might not be loud. In this case, set STABLE VOLUME to OFF.

RLS FUNCTION

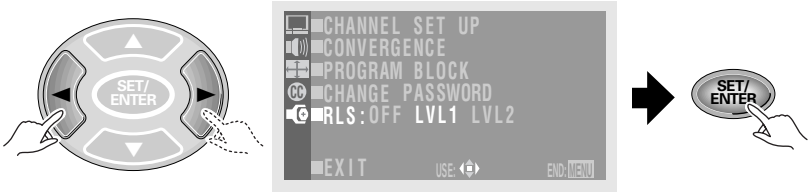


The monitor has a sensor that automatically adjusts the black level, contrast and color of the screen in accordance with the light in the room. This is called the RLS (Room Light Sensor). You can adjust the RLS to react to a greater or lesser extent to the light in the room.

1 Press MENU and select SET UP by using the ▲ or ▼ button and then pressing SET/ENTER. (Refer to page 24.)

2 Select RLS in the same way.

3 Select the desired RLS mode.



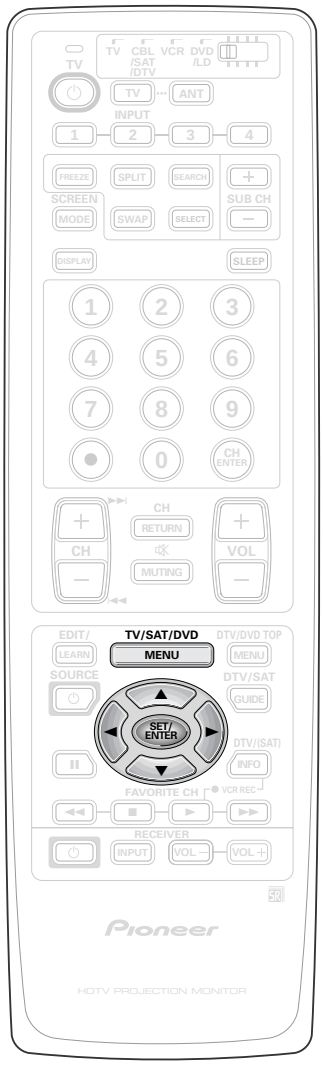
LVL1 ..... Brightness of the TV screen varies according to the brightness of the room.
LVL2 ..... Brightness of the TV screen varies even more according to the brightness of the room.

4 After setting, press MENU to turn the menu off.

MULTI-POINT CONVERGENCE ADJUSTMENT

Before convergence adjustment*1, please choose a stabilized input signal*2 in order to display a stable cross pattern.

*1 Convergence adjustment ..... Color deviation adjustment
*2 Stabilized input signal ..... Examples, DVD player, digital tuner, etc.
Convergence adjustment may be fined-tuned here.

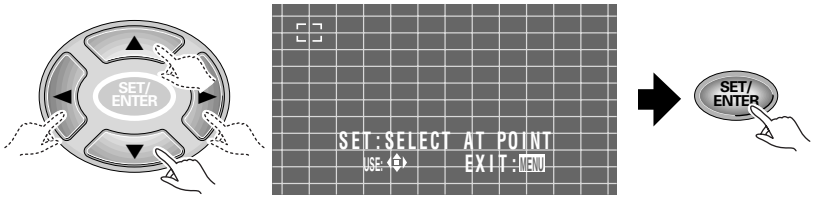


1 Press MENU and select SET UP by using the ▲ or ▼ button and then pressing SET/ENTER. (Refer to page 24.)

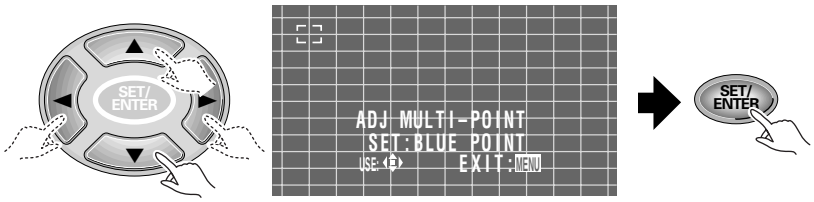
2 Adjust the center point convergence. (Refer to steps 2 to 5 on pages 28 to 29.)

3 Select ADJ MULTI-POINT.

4 Select the adjust point.

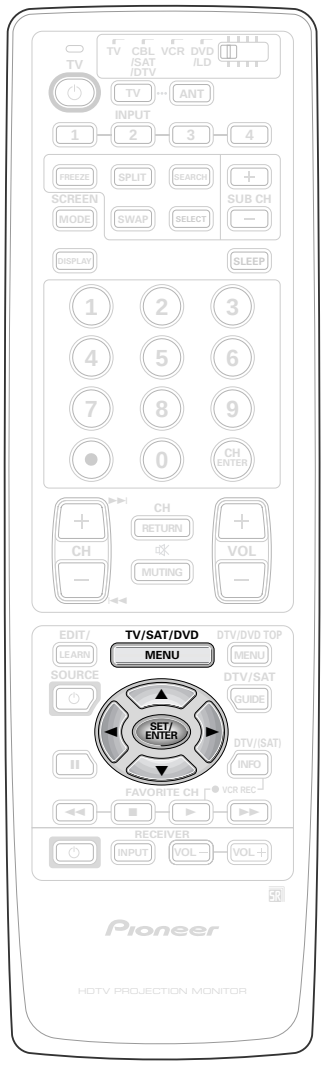


5 Adjust the red line.

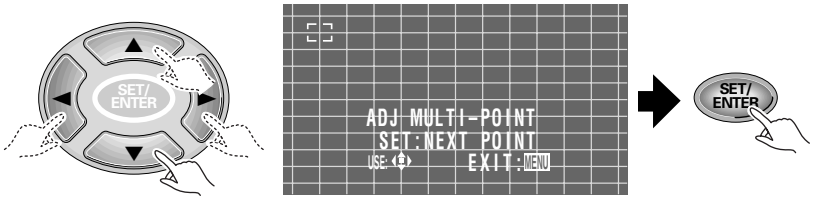


NOTES:

- *The number of adjustment points varies according to the screen mode. The cursor is partially invisible around the edge of the screen according to the screen mode.*
- *It is not possible to adjust all these points (points of change on the cross-hatch).*
- *Some of the cross-hatch lines are not straight, but this is not a malfunction. They are not always straight on a normal TV.*



6 Adjust the blue line.



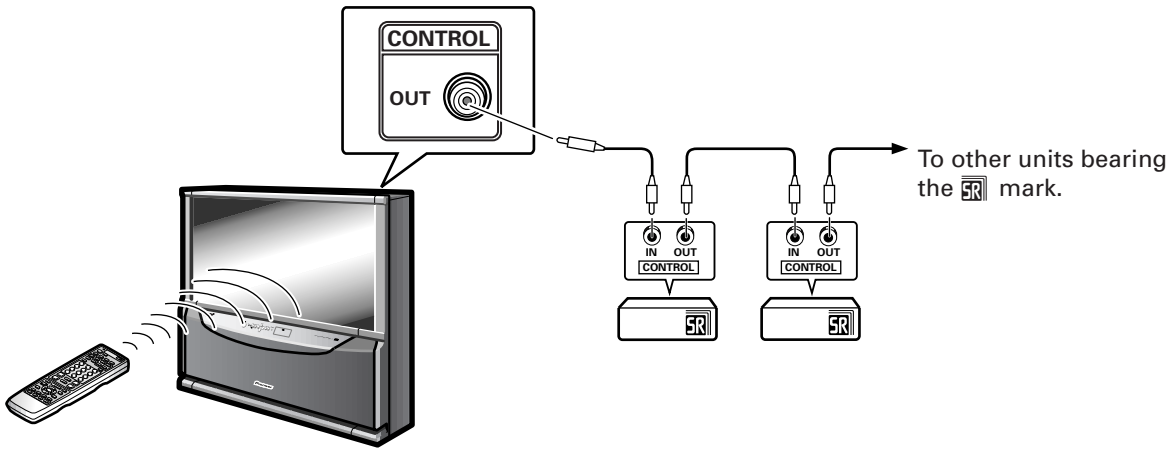
- The brackets which shows the adjusting point will move in order.
  Move to the next point to be adjusted, and repeat steps 4 to 6.

7 After completing the convergence adjustment, press MENU twice to turn the menu off.

CONNECTING THE SYSTEM REMOTE CONTROL (When operating Pioneer units with SR mark)

If you want to control are your Pioneer equipment with the remote for this unit, you can daisy-chain the components. Connect the audio/video components using the pioneer SR terminals as shown below. See page 70 to 75 for how to control other components.

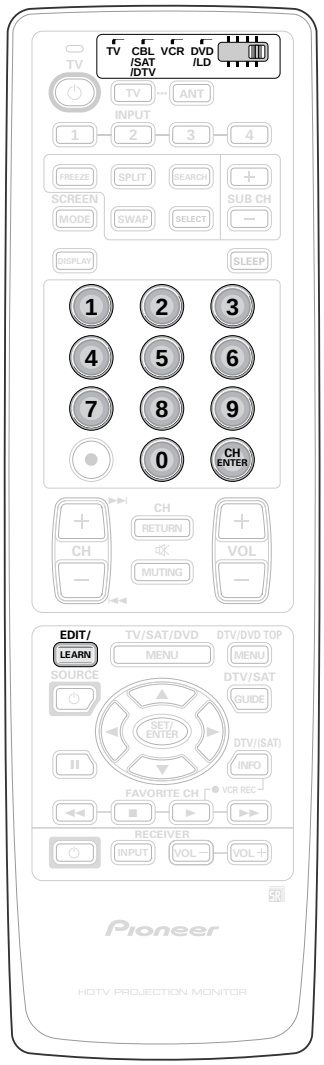
<Connect as shown>



NOTES:

- *Point the remote control at the this unit in the chain (the equipment with no CONTROL IN connection).*
- *To connect the control cord, use the commercially available mini plug cord (monaural).*

REMOTE CODE SET UP



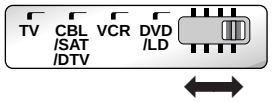
To operate other manufacturers' audio/video units using this remote control unit, remote control codes need to be input.
There are two methods of setting remote control codes

- For calling the other manufacturers' preset remote control codes to this remote control unit
- For learning other manufacturers' remote control codes

RECALLING OTHER MANUFACTURERS' PRESET REMOTE CONTROL CODES

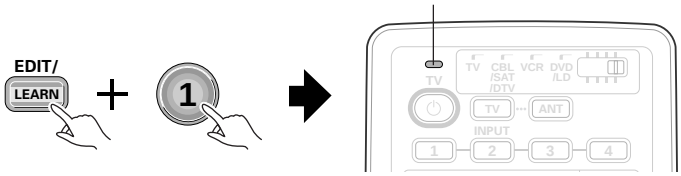
1 Set the mode switch to match the device to which you want to preset the remote control code.

- Example: To select DVD/LD.



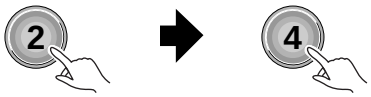
2 At the same time, press the EDIT button and number button 1.

LED will begin blinking.



3 Select the desired manufacturer.

- Select from the figure on page 67.
- Example: To select 24 (PHILIPS) in the LD mode.



- If the LED blinks rapidly when the number button has been pressed, there has been an error. Input the number again.
- After setting, you can automatically use the remote control in the usual manner.

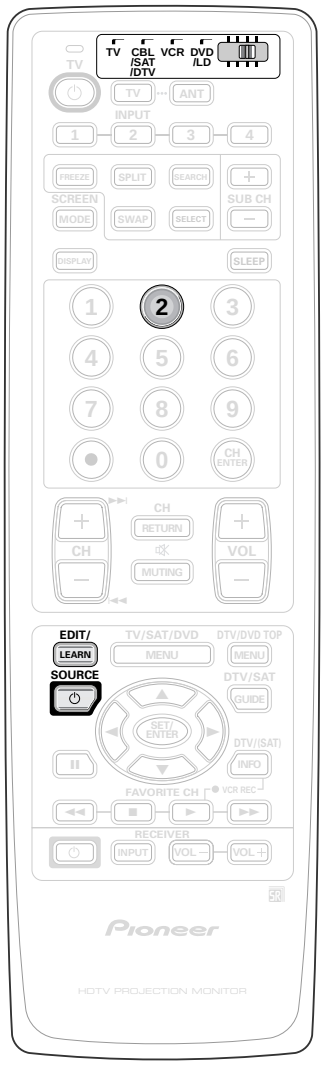
NOTES:

- *To stop the EDIT mode in the middle, press the EDIT button once more.*
- *If mode switch is switched while in EDIT mode, EDIT mode will be canceled.*
- *After step 1 and step 2, if you do not press the button for one minute (no operation), the EDIT mode will be canceled.*
- *If the table on page 67 does not include your desired manufacturer or the remote control code does not work, you can make the memory learn its code by the learning mode (see page 68).*
- *The initial code is "00" (PIONEER).*

Manufacturer's preset remote control codes

	CBL/SAT/DTV	VCR	DVD/LD
00	PIONEER 1 (CABLE)	PIONEER	PIONEER (DVD)
01	PIONEER 2 (CABLE)	FISHER	PANASONIC (DVD)
02	JERROLD 1 (CABLE)	FISHER	SAMSUNG (DVD)
03	JERROLD 2 (CABLE)	FISHER	SONY (DVD)
04	JERROLD 3 (CABLE)	GOLD STAR	TOSHIBA (DVD)
05	JERROLD 4 (CABLE)	HITACHI	JVC (DVD)
06	JERROLD 5 (CABLE)	HITACHI 2	None
07	JERROLD 6 (CABLE)	HITACHI 3	None
08	JERROLD 7 (CABLE)	MAGNAVOX 2	None
09	JERROLD 8 (CABLE)	MITSUBISHI	None
10	JERROLD 9 (CABLE)	MITSUBISHI 2	None
11	JERROLD 10 (CABLE)	MITSUBISHI 3	None
12	S. A. 1 (CABLE)	MITSUBISHI 4	None
13	S. A. 2 (CABLE)	MITSUBISHI 5	None
14	S. A. 3 (CABLE)	MITSUBISHI 6	None
15	S. A. 4 (CABLE)	PANASONIC	None
16	ZENITH 1 (CABLE)	PANASONIC 2	None
17	ZENITH 2 (CABLE)	PANASONIC 3	None
18	ZENITH 3 (CABLE)	RCA	None
19	None	RCA 2	None
20	PIONEER (SAT)	RCA 3	PIONEER (LD)
21	RCA 1 (SAT)	SANYO	KENWOOD (LD)
22	RCA 2 (SAT)	SANYO 2	PANASONIC 1 (LD)
23	SONY (SAT)	SANYO 3	PANASONIC 2 (LD)
24	None	SHARP	PHILIPS (LD)
25	None	SHARP 2	RCA (LD)
26	None	SHARP 3	SONY (MDP)
27	None	SONY (BETA)	SONY (LD)
28	None	SONY (VHS)	None
29	None	SONY (8mm)	None
30	PIONEER (DTV)	TOSHIBA	None
31	SHARP (DTV)	JVC	None
32	None	JVC 2	None
33	None	JVC 3	None
34	None	JVC 4	None
35	None	JVC 5	None
36	None	ZENITH	None

Different functions can be performed by different components using the remote control buttons. (See pages 71 to 75).



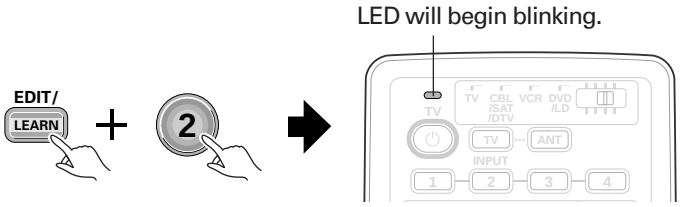
TO LEARN REMOTE CONTROL CODES

To operate other manufacturers' remote control codes not preset using the remote control unit, have the remote control unit learn these signals.

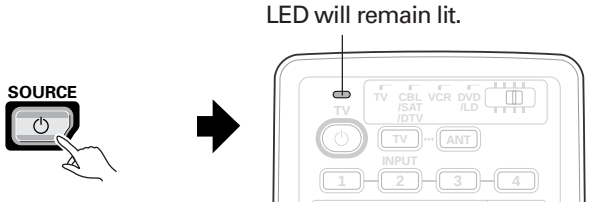
Example) To learn the VCR power to turn on.

Before operation:
To set the mode switch to VCR when a video cassette recorder is connected (see page 14).

1 At the same time, press the LEARN button and number button 2.



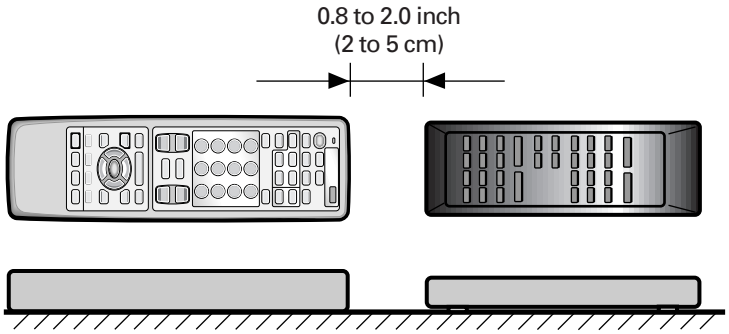
2 Press the SOURCE POWER button to memorize the desired operation.

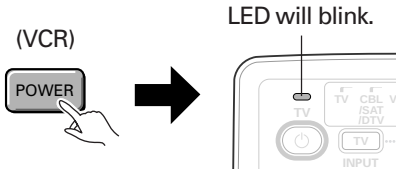


- Buttons which can be learnt are as follows.
  CABLE ..... SOURCE POWER, CH (+), CH (–), CH RETURN, CH ENTER, 1 to 9, 0
  SAT ..... SOURCE POWER, CH (+), CH (–), ◄, ►, ▲, ▼, SET/ENTER, TV/SAT/DVD MENU, DTV/SAT GUIDE, DTV/(SAT) INFO, CH ENTER, 1 to 9, 0
  DTV ..... SOURCE POWER, BLUE, GREEN, RED, YELLOW, ◄, ►, ▲, ▼, SET/ENTER, DTV/DVD TOP MENU, CH (+), CH (–), 1 to 9, 0, CH ENTER, • (DOT), SCREEN MODE, CH RETURN, DTV (SAT) INFO, DTV/SAT GUIDE, ANT
  VCR ..... SOURCE POWER, CH (+), CH (–), ❚❚, ◄◄, ■, ►, ►►, ● (VCR REC)
  DVD ..... SOURCE POWER, ►►I, I◄◄, ❚❚, ◄◄, ■, ►, ►►, ◄, ►, ▲, ▼, SET/ENTER, TV/SAT/DVD MENU, DTV/DVD TOP MENU
  LD ..... SOURCE POWER, ►►I, I◄◄, ❚❚, ◄◄, ■, ►, ►►
- CABLE/SAT/DTV and DVD/LD cannot be selected at the same time.

3 Face the remote control unit of the other manufacturer's and the remote control unit of the Monitor to each other, and press the POWER button of the remote control unit of the other manufacturer's.

Leave about 0.8 to two inches (2 to 5 cm) between the two remote control units.
If you learn how to use the remote control unit you can adjust the distance of the remote control units.



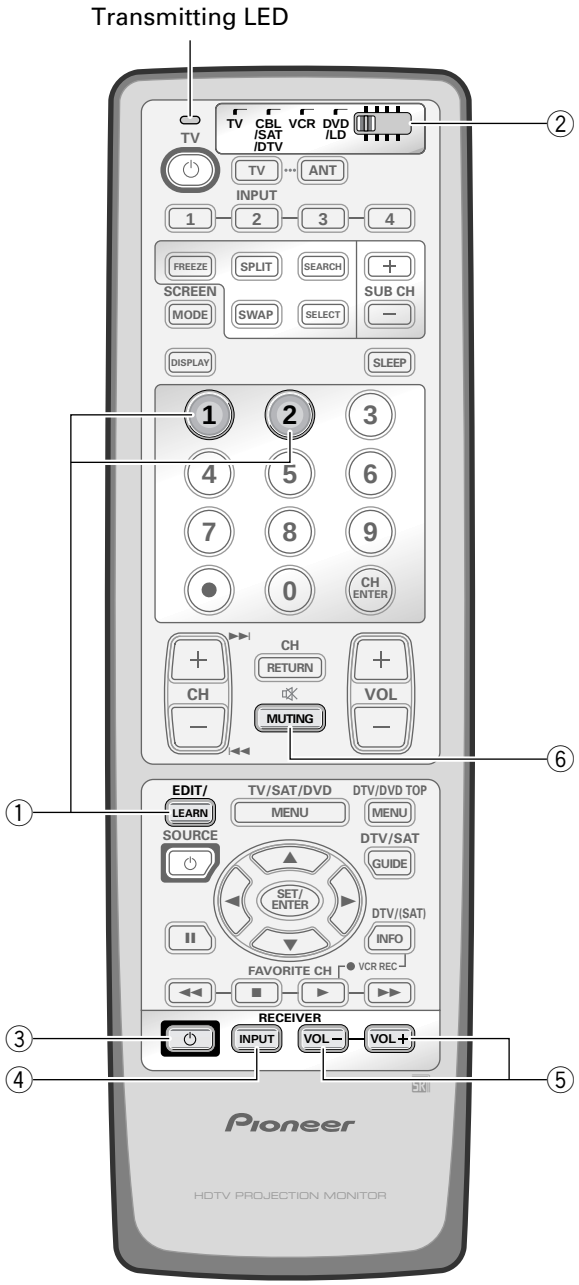


- If blinks once, return to step 2 for other buttons.
- Flashes four times, it indicates an error has occurred.

- This ends learn.
  Repeat steps 2 and 3 for learning pertaining to other VCR devices.
- If the remote control unit's LED blink four times, it means that learning capacity has reached its maximum and no more learning will be possible.

4 When the LEARN button is pressed, the remote control unit return to normal states.

NOTES:
- *To stop using the LEARN mode in the middle, press the LEARN button again.*
- *If mode switch is switched while in LEARN mode, LEARN mode will be canceled.*
- *After steps 1 and 2, if you do not press the button for one minute (no operation), the LEARN mode will be canceled.*
- *To reset the learn setting, have the LED blinking as in step 1 and then keep the remote control unit's TV POWER button pressed for at least 2 seconds.*
- *There are some remote controls which cannot learn.*



USING THE TV REMOTE CONTROL UNIT TO CONTROL OTHER DEVICES

REMOTE CONTROL UNIT SETTING BUTTONS

① **EDIT/LEARN button**

EDIT: When the EDIT/LEARN button is pressed at the same time as number button 1, the mode will change to preset code edit mode. (See page 66.)

LEARN: When the EDIT/LEARN button is pressed at the same time as number button 2, the unit's capability to learn and store command codes from other remote control units will be activated. (See page 68.)

② **Mode switch**

Use to switch the remote control unit modes.

RECEIVER CONTROL BUTTONS

When a Pioneer receiver is connected to the Monitor, the receiver can be operated using buttons ③ to ⑤.
When another company's receiver is connected to the Monitor, have the signals for ③ to ⑤ learned (see page 68).

③ ⏻ **RECEIVER POWER button (STANDBY/ON)**

Turns receiver power on and off.

④ **RECEIVER INPUT button**

Selects the input source connected to the receiver.

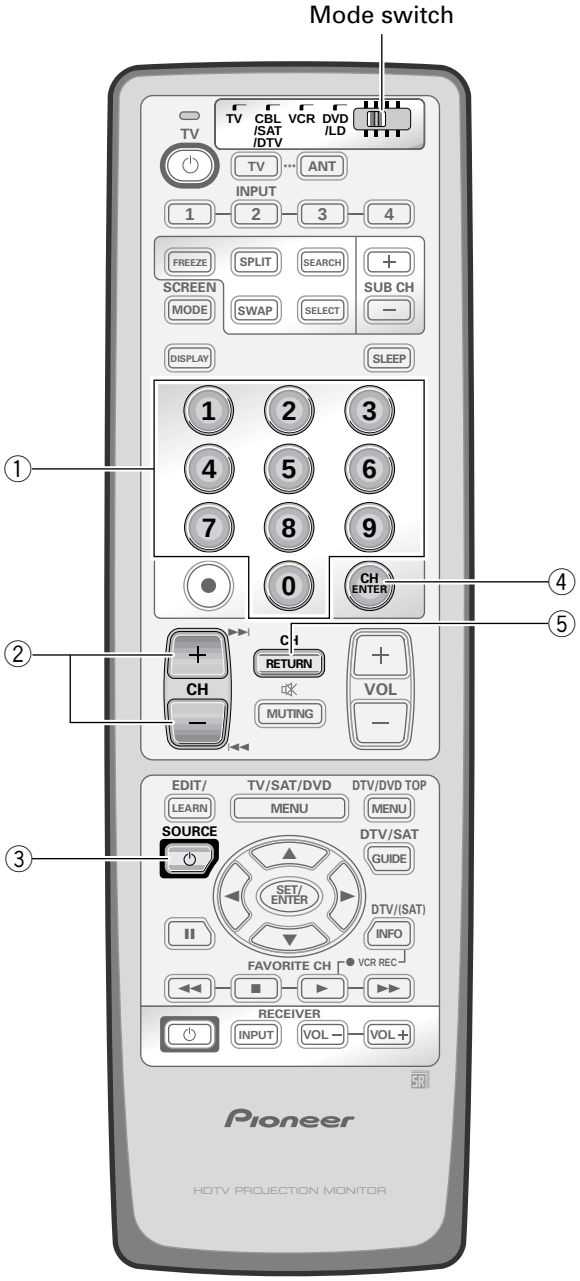
⑤ **RECEIVER VOL (volume) +, – buttons**

Adjusts receiver volume level.
Press the plus button (+) to increase the volume and the minus button (–) to decrease it.

⑥ **(RECEIVER) MUTING button**

Allows the receiver's mute signal to be learned.
This button is used when the mode switch has been set to something other than TV.

CABLE CONTROL BUTTONS



CABLE, SAT and DTV cannot be selected at the same time.

When the mode switch is set to CBL/SAT/DTV the cable converter connected to the Monitor can be operated using the buttons ① to ⑤.
Cable converters which are made by other makers and are not preset can also be operated using the remote control unit if buttons ① to ⑤ have learnt the functions (see page 68).

① **Direct channel selection buttons**
Press the button (or buttons) that corresponds to the channel that you wish to watch.

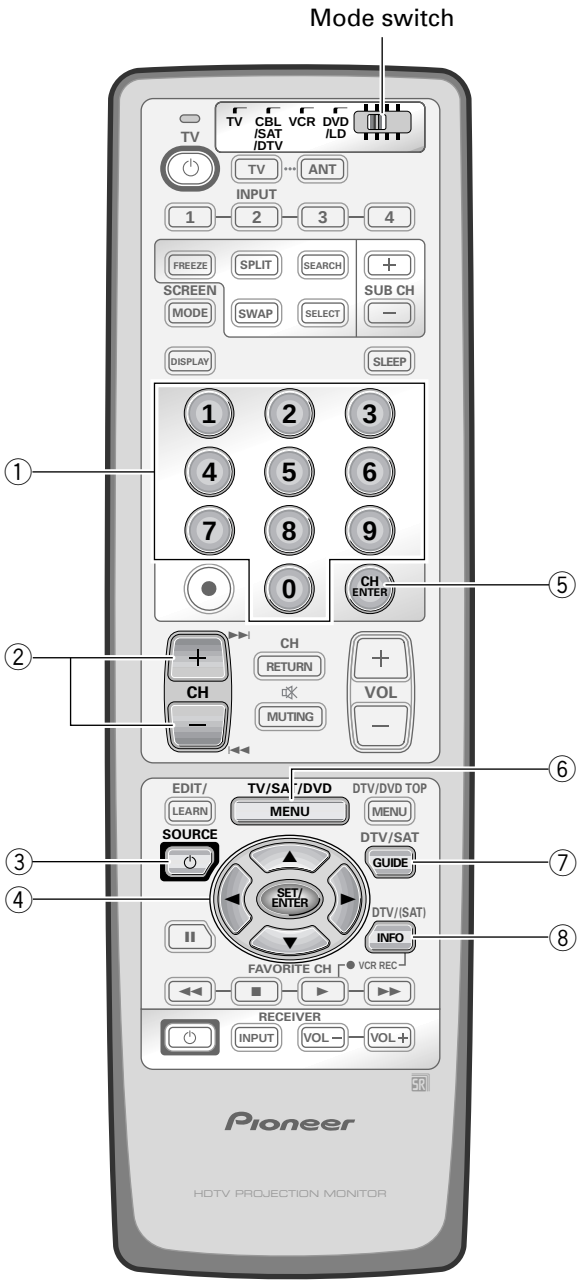
② **CH (channel) +, – buttons**
Press plus (+) or minus (–) to tune in a higher or lower channel.

③ ⏻ **SOURCE POWER button**
Turns the power of the cable converter on and off.

④ **CH ENTER button** *
Fix the selected channel with the direct channel selection buttons.

⑤ **CH RETURN (channel return) button** *
Press to switch between the current channel and the channel you were watching immediately before.

* Some manufacturers do not preset CH ENTER and CH RETURN. Use these buttons to learn if necessary.



SAT CONTROL BUTTONS

CABLE, SAT and DTV cannot be selected at the same time.

When SAT is preset by REMOTE CODE SET UP, the remote control unit buttons will function as shown below.

- When a satellite broadcast tuner is connected to the Monitor, press the input selector button that has the same number as the connected input terminal and set the mode switch to CBL/SAT/DTV.
  The tuner can be operated using buttons ① to ⑧.
- Satellite broadcast tuners which are made by other makers and are not preset can also be operated with the remote control unit if buttons ① to ⑧ have learnt the functions (see page 68).

① **Direct channel selection buttons**
Press the button (or buttons) that corresponds to the channel that you wish to watch.

② **CH (channel) +, – buttons**
Press plus (+) or minus (–) to tune in a higher or lower channel.

③ **⏻ SOURCE POWER button**
Turns the power of the SAT (digital satellite system tuner) on and off.

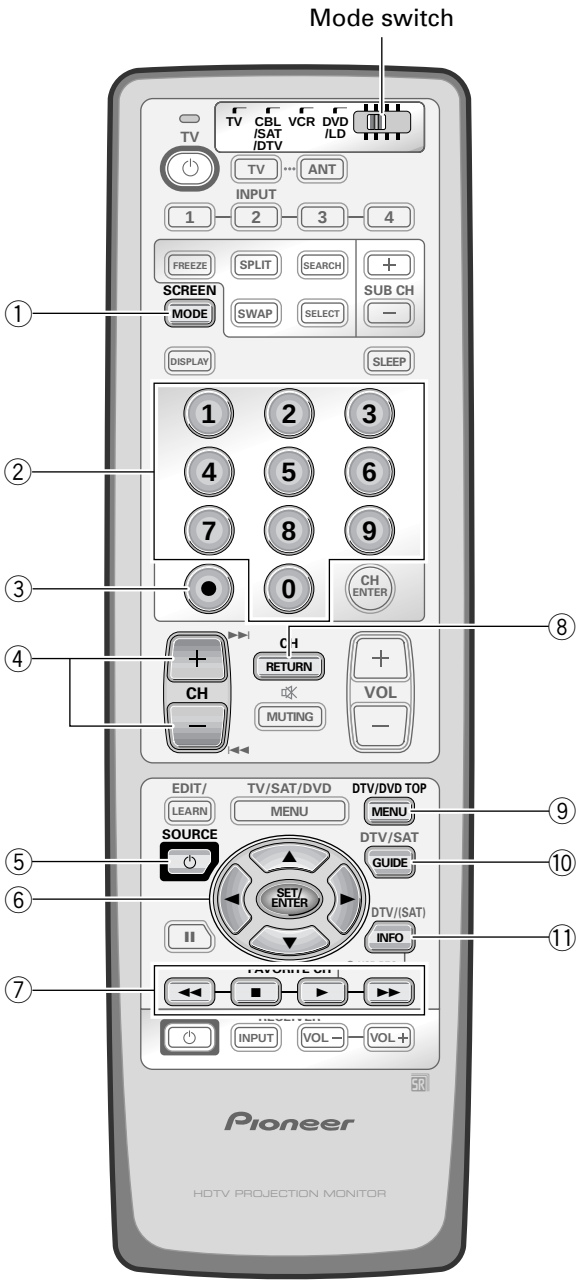
④ **Select/Set buttons (SET/ENTER, ◄, ►, ▲, ▼)**
◄, ►, ▲, ▼: Press the button to select items on the SAT GUIDE screen or SAT MENU screen.
SET/ENTER: Press to activate the selected function.

⑤ **CH ENTER button**
Fix the selected channel with the direct channel selection buttons.
- Use this button to learn if necessary.

⑥ **SAT MENU button**
When this button is pressed, the satellite broadcasting menu screen will be displayed.

⑦ **SAT GUIDE button**
When this button is pressed, the satellite broadcasting guide screen will be displayed.

⑧ **SAT INFO button**
When this button is pressed, information on satellite broadcasting will be displayed.
- Use this button to learn if necessary.



DTV CONTROL BUTTONS

CABLE, SAT and DTV cannot be selected at the same time.

When a digital tuner is connected to the Monitor, set the mode switch to CBL/SAT/DTV. The tuner can be operated using buttons ① to ⑪.

① **SCREEN MODE button**
Press to select the SCREEN MODE.

② **Direct channel selection buttons**
Press the button (or buttons) that corresponds to the channel that you wish to watch.

③ **● button**
Used in channel selection.

④ **CH (channel) +, – button**
Press plus (+) or minus (–) to tune in a higher or lower channel.

⑤ **⏻ SOURCE POWER button**
Turns the power of the DTV (digital tuner) on and off.

⑥ **Select/Set buttons (SET/ENTER, ◄, ►, ▲, ▼)**
◄, ►, ▲, ▼: Press the button to select items on the DTV MENU screen.
SET/ENTER: Press to activate the selected function.

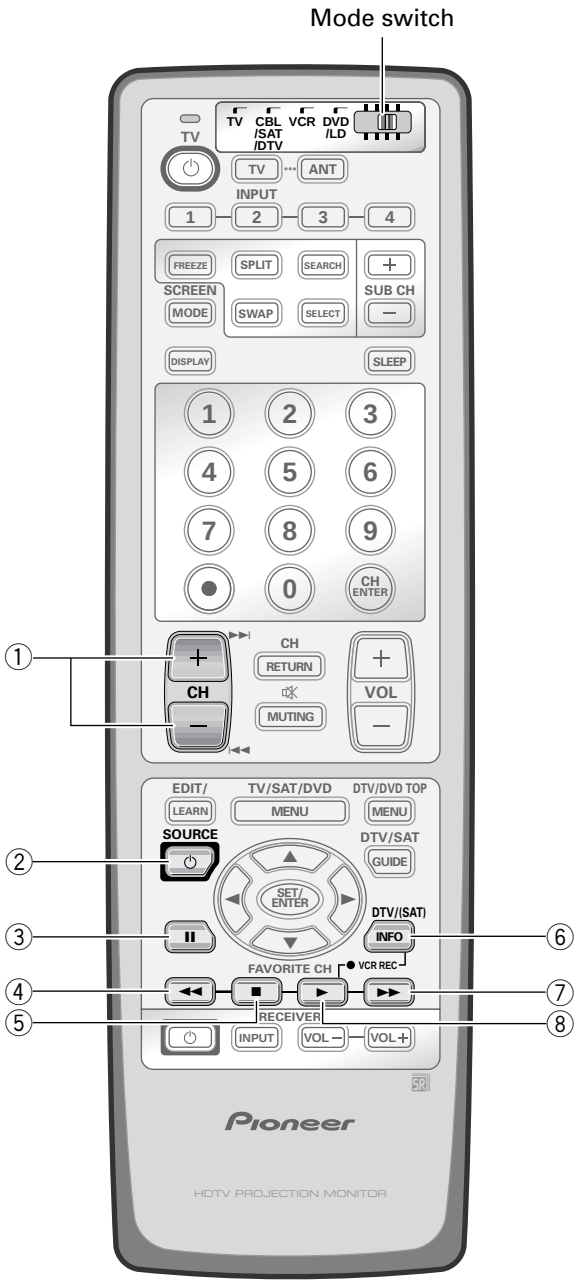
⑦ **FAVORITE CH/Colored (blue, green, red and yellow) buttons**
FAVORITE CH: Used for making FAVORITE CH settings with the digital tuner.
Blue, Green, Red, Yellow: Used to make selections from the digital tuner menu.

⑧ **CH RETURN (channel return) button**
Press to switch between the current channel and the channel you were watching immediately before.

⑨ **DTV MENU button**
When this button is pressed, the DTV menu screen will be displayed.

⑩ **DTV GUIDE button**
When this button is pressed, the DTV guide screen will be displayed.

⑪ **DTV INFO button**
When this button is pressed, information on DTV will be displayed.



VCR CONTROL BUTTONS

If the VCR is preset by REMOTE CODE SET UP, the remote control unit button will function as follows when the mode switch of the remote control unit is set to VCR.
When the input selector button having the same number as the input terminal connecting the VCR is pressed, the VCR can be operated using buttons ① to ⑧.
VCR which are made by other makers and are not preset can also be operated using the remote control unit if buttons ① to ⑧ have learnt the functions (see page 68).

① **CH (channel) +, – buttons**
Press to select the channel of the TV tuner on the VCR.

② **⏻ SOURCE POWER button**
Turns the power of the VCR on and off.

③ **II (PAUSE/STILL) button**
Set pauses and still pictures.

④ **◄◄ (REW) button**
Rewinds the tape and allows picture search.

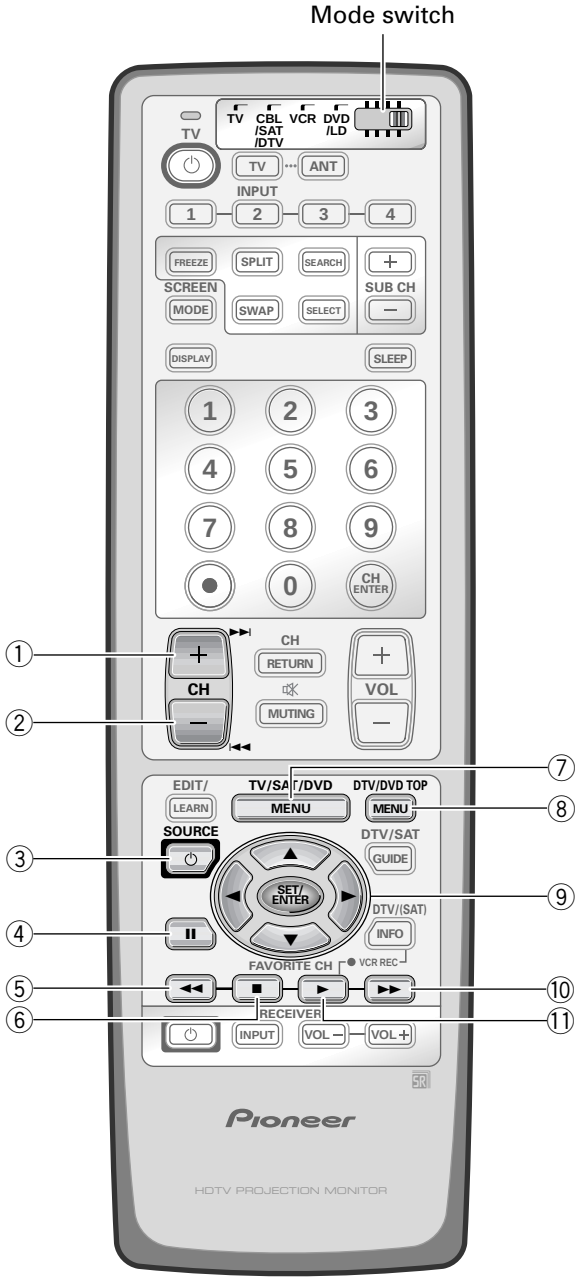
⑤ **■ (STOP) button**
Stop the tape transport.

⑥, ⑧ **VCR REC (record) buttons**
Press both buttons at the same time to start recording.

⑦ **►► (FF) button**
Rapidly advances the tape and allows picture search.

⑧ **► (PLAY) button**
Selects playback.

DVD/LD CONTROL BUTTONS



DVD and LD cannot be selected at the same time.

If the DVD/LD is preset by REMOTE CODE SET UP, the remote control unit button will function as follows when the mode switch of the remote control unit is set to DVD/LD.
When the input selector button having the same number as the input terminal connecting a DVD player or LD player is pressed, these players can be operated using buttons ① to ⑪ (buttons ⑦ to ⑨ are for DVD players only).
DVD player/LD player which are made by other makers and are not preset can also be operated using the remote control unit if buttons ① to ⑪ have learnt the functions (see page 68).

① **►►| (CHAPTER SEARCH) button**
Pressing quickly once takes you to the start of the next chapter. Each time you press it, you move ahead to the start of the next chapter.

② **|◄◄ (CHAPTER SEARCH) button**
Pressing quickly once takes you to the start of the chapter currently playing. Each time you press it, you move back to the start of the previous chapter.

③ **⏻ SOURCE POWER button**
Turns the power of the DVD/LD player on and off.

④ **II (PAUSE/STILL) button**
Set pauses and still pictures.

⑤ **◄◄ (SCAN) button**
Continue pressing to rewind.

⑥ **■ (STOP) button**
Playback is stopped when pressing once.
With some DVD/LD players, pressing the button twice may open the disc tray.

⑦ **DVD MENU button (DVD only)**
When this button is pressed, the DVD menu will be displayed.

⑧ **DVD TOP MENU button (DVD only)**
When this button is pressed, the DVD top menu will be displayed.

⑨ **Select/Set buttons (SET/ENTER, ◄, ►, ▲, ▼) (DVD only)**
◄, ►, ▲, ▼: Press the button to select items on the DVD MENU screen.
SET/ENTER: Press to activate the selected function.

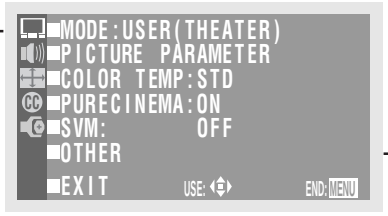
⑩ **►► (SCAN) button**
Continue pressing for fast forward.

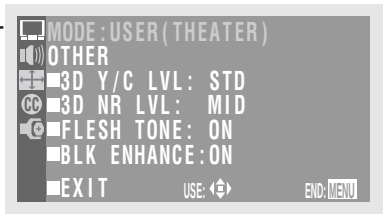
⑪ **► (PLAY) button**
Selects playback.

MENU INDEX

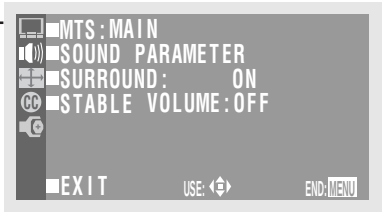
Main menu (See page 24)

PICTURE adjustment menu (See page 49)



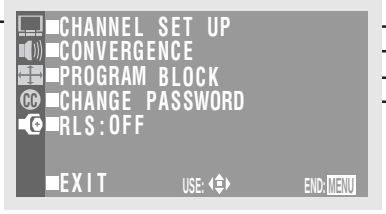


SOUND adjustment menu (See page 58)



SCREEN setting menu (See page 40)

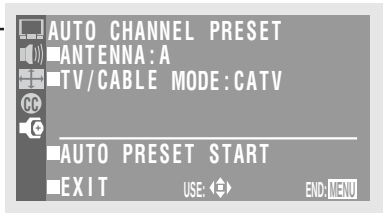
SET UP menu (See page 25)



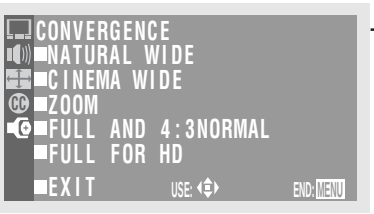
Closed Caption menu (See page 43)

CHANNEL SET UP menu (See page 26)

AUTO CHANNEL PRESET menu (See page 26)



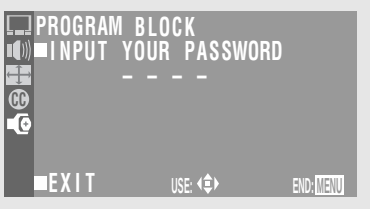
CONVERGENCE menu (See pages 28 and 63)



CHANNEL ADD/DEL menu (See page 44)

FAVORITE CHANNEL menu (See page 47)

PROGRAM BLOCK menu (See page 32)



CHANGE PASSWORD menu (See page 37)

TROUBLESHOOTING

Incorrect operations are often mistaken for trouble and malfunctions. If you think that there is something wrong with the Monitor, check the points below. Sometimes the trouble may lie in another component. Investigate the other component and electrical appliances being used.
If the trouble cannot be rectified even after exercising the checks listed below, ask your nearest PIONEER authorized service center or your dealer to carry out repair work.

SYMPTOM	CAUSE/REMEDY	PAGES
The power will not turn on	The power plug is disconnected. The MAIN POWER button is not turned on.	**10** **10**
The Monitor is inoperative	Press the RETURN button. External influences such as lightning and static electricity may prevent the Monitor from operating normally. In such cases, turn on/off the MAIN POWER supply, disconnect the power cord, connect it again a few minutes later, and try operating the Monitor.	**18**
A TV broadcast station cannot be received	The antenna cable is not connected properly. The antenna cable is broken or shorted. Channels have not been preset correctly.	**12** **26**
No picture appears on the screen	The DVD/LD player or VCR is not connected and operated properly. The input selector has not been set to the desired input source (such as DVD/LD player and VCR).	**14**
No sound	The MUTING is on (volume indicator is red).	**23**
The Monitor cannot be operated using the remote control unit	The batteries in the battery compartment are not correctly matching the (+ and –) polarities. The battery has worn out. Strong lights striking the remote control sensor may cause the internal microcomputer to malfunction.	**11** **11**
The color is not normal **The color is too dim or too sharp** **The color is uneven**	Adjust the picture quality. The room is too bright. Adjust the color convergence.	**51** **28 and 63**
Picture does not appear immediately after changing channels	TV-CATV MODE is set incorrectly.	**26**
Closed caption is not displayed	CC will be set either to OFF or ON IF MUTE. Check the CC menu settings. (As at October 1, 1999, limited closed caption information is broadcasted in field 1. The closed caption information that will be broadcasted in field 2 in the future may not be decoded with this unit). The character information is not displayed normally during special playback, such as slow and still play, of the VCR or Videodisc player. Closed caption signal may not be output depending on the VCR, Videodisc player or other components (for details, please consult the manufacturer of your unit). Check that the video cassette, Videodisc or broadcasting being played contains closed caption data (The video cassette and Videodisc containing closed caption data carries the CC mark etc.).	**43**

The following symptoms may be mistakenly regarded as malfunctioning.
In many cases, they are not the faults of the Monitor.

SYMPTOM	CAUSE
There are 2 or 3 layers of images (ghost images)	Influence of waves from the broadcast stations reflected by nearby mountains and high-rise buildings.
Spots appears on the screen **Noises are audible**	Influence of harmful waves produced by motor equipments such as hair dryers and vacuum cleaners, ignition devices such as cars and motorbikes, flashing devices such as thermostats and electricity discharge by transmission/distribution lines.
Stripes appears on the screen **Noises are audible**	Mixing of electric waves from TV stations FM stations, amateur wireless, public wireless (simple wireless), etc., or nearby personal computer, TV, VCR, audio equipment.
A loud crack is heard after the power is turned on	Sometimes, creaking sounds will be produced when cabinets expand or contract due to changes in the surrounding temperature. Do not suspect a fault.
There is a pop and the power goes off	The power was turned off momentarily due to the protection circuit to correct the electric discharge phenomenon in the CRT. Do not suspect fault.

SPECIFICATIONS

Display and amplifier section

Reception system ..... American TV standard NTSC system
Screen size ..... 64" (SD-643HD5)
53" (SD-533HD5)
CRT ..... 7" High focus CRT x 3
Brightness (White peak) ..... 400 Foot-Lambert (SD-643HD5)
580 Foot-Lambert (SD-533HD5)
[White window signal input contrast Max.]
without protective screen
Horizontal resolution ..... More than 1000 lines (SD-643HD5)
More than 1000 lines (SD-533HD5)
[Input digital test pattern (1000 lines resolution)]
Input terminals ..... 4 video inputs
3 S-VIDEO input jacks (Y/C separate INPUT)
2 COMPONENT VIDEO INPUT jacks (Y, P_B, P_R)
4 audio inputs
Mini D-sub 15 pin INPUT jack (RGB)
Output terminals ..... MONITOR
Input terminal signal ratings
Input signal
Video signal:
Composite and S-VIDEO (Y): 1.0 Vp-p (75 ohms load)
COMPONENT (Y): 1.0 Vp-p (75 ohms load)
(P_B, P_R): 0.7 Vp-p (75 ohms load)
Mini D-sub 15 pin (RGB): 0.7 Vp-p (75 ohms load)
Audio signal (including CENTER): 400mV rms
Input impedance ..... Video input: 75 ohms
Audio input (including CENTER): 22 kilo-ohms or more
Input signal polarity (Video) ..... Synchronized negative
Output terminal signal ratings
Output signal ..... Video signal: 1 Vp-p (75 ohms load)
Audio signal: 500 mV rms (100 % modulation)
Output impedance ..... Video output: 75 ohms
Audio output: Less than 1 kilo-ohms
Effective output
Front both channels driven ..... 10 W + 10 W
(THD. 10 % 1 kHz, 8 ohms)
Built-in speaker system ..... 16 cm (6-5/16 in) full range x 2

Tuner section

Circuit type ..... Video signal detection:
PLL full synchronous detection
PLL digital synthesizer system
Audio multiplex: BTSC system
Reception channels ..... VHF; CH2~CH13, UHF; CH14~CH69
CATV (STANDARD, IRC or HRC)
CATV 1-125 CH
Antenna terminals
..... Antenna terminal, 75 ohms UNBAL,
F-type connector (VHF, UHF MIXED)

Electrical section, miscellaneous

Power requirements ..... 120 V AC, 60 Hz
Power consumption ..... 230 W, 430 VA (CSA)
External dimensions
SD-643HD5 ..... 1517 (W) x 702 (D) x 1400 (H) mm
59-3/4 (W) x 27-5/8 (D) x 55-1/8 (H) inch
SD-533HD5 ..... 1275 (W) x 627 (D) x 1264 (H) mm
50-3/16 (W) x 24-11/16 (D) x 49-3/4 (H) inch

Weight of main unit
SD-643HD5 ..... 117 kg (258 lb)
SD-533HD5 ..... 95 kg (209 lb 8 oz)

Wireless remote control unit

Operation system ..... Infrared remote control system
Power source ..... Two DURACELL ®"AA" MN1500 1.5 V
ALKALINE dry cell batteries
Dimensions ..... 66 (W) x 24.6 (H) x 226.5 (D) mm
2-19/32 (W) x 31/32 (H) x 8-29/32 (D) inch
Weight ..... 170 g (4 oz) (without batteries)

Accessories

Operating instructions 1
Warranty card 1
Remote control unit 1
DURACELL® "AA" MN1500 1.5V
Alkaline dry cell batteries 2

NOTE:
Specifications and design are subject to possible modifications without notice due to improvements.

Should this product require service in the U.S.A. and you wish to locate the nearest Pioneer Authorized Independent Service Company, or if you wish to purchase replacement parts, operating instructions, service manuals, or accessories, please call the number shown below.

800–421–1404

Please do not ship your product to Pioneer without first calling the Customer Service Department at the above listed number for assistance.

Pioneer Electronics Service, Inc.
Customer Service Department
P.O. BOX 1760, Long Beach,
CA 90801-1760, U.S.A.

For warranty information please see the Limited Warranty sheet included with your product.

Should this product require service in Canada, please contact a Pioneer Canadian Authorized Dealer to locate the nearest Pioneer Authorized Service Company in Canada.
Alternatively, please contact the Customer Satisfaction Department at the following address:

Pioneer Electronics of Canada, Inc.
Customer Satisfaction Department
300 Allstate Parkway, Markham, Ontario L3R OP2
(905)479-4411
1(877)283-5901

For warranty information please see the Limited Warranty sheet included with your product.

Si ce produit doit être réparé au Canada, veuillez vous adresser à un distributeur autorisé Pioneer du Canada pour obtenir le nom du Centre de Service Autorisé Pioneer le plus près de chez-vous. Vous pouvez aussi contacter le Service à la clientèle de Pioneer:

Pioneer Électroniques du Canada, Inc.
Service à la clientèle
300, Allstate Parkway, Markham, Ontario L3R OP2
(905)479-4411
1(877)283-5901

Pour obtenir des renseignements sur la garantie, veuillez vous reporter au feuillet sur la garantie restreinte qui accompagne le produit.

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